

99 ——— B

FIG. 1

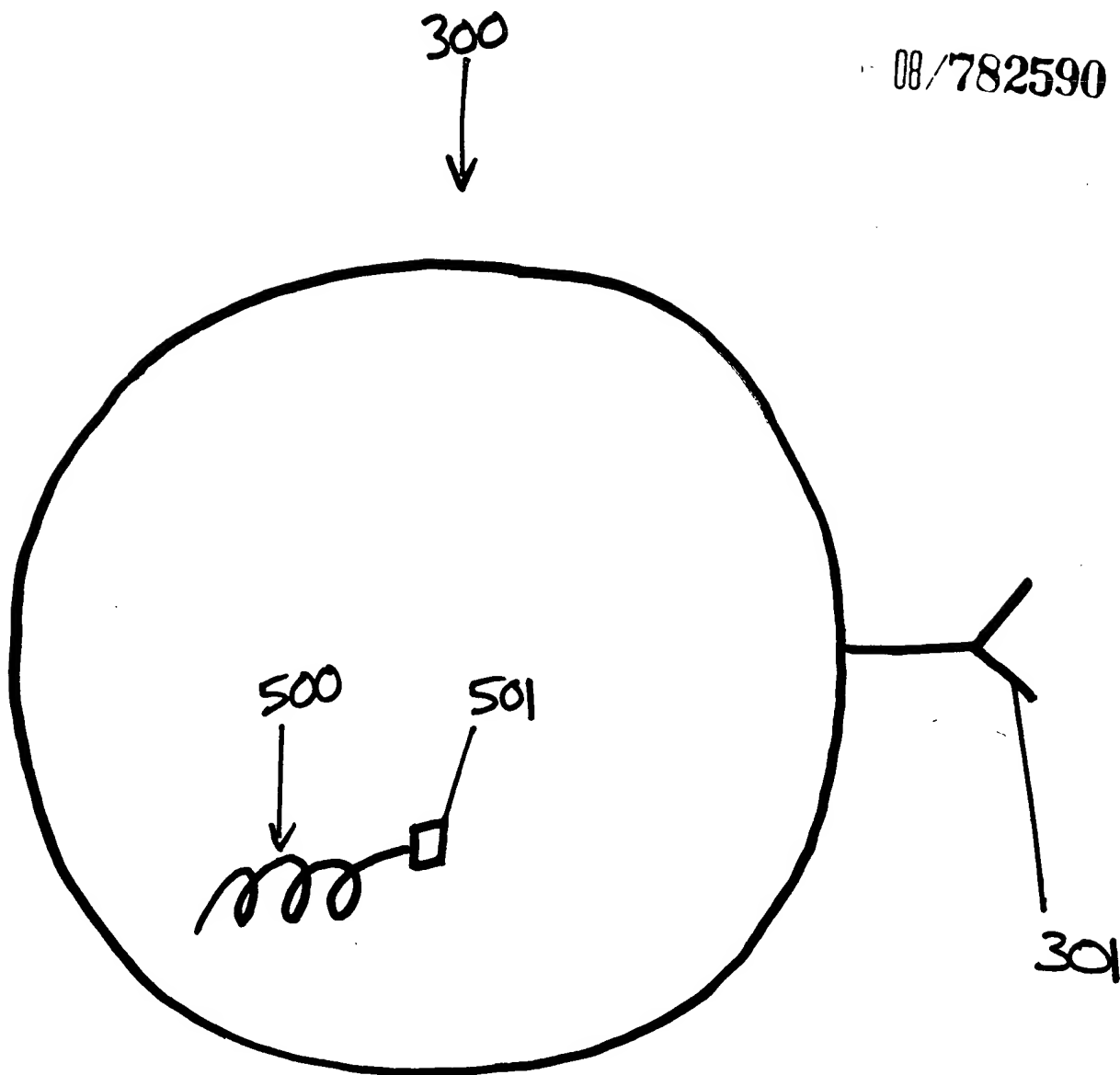


FIG. 2

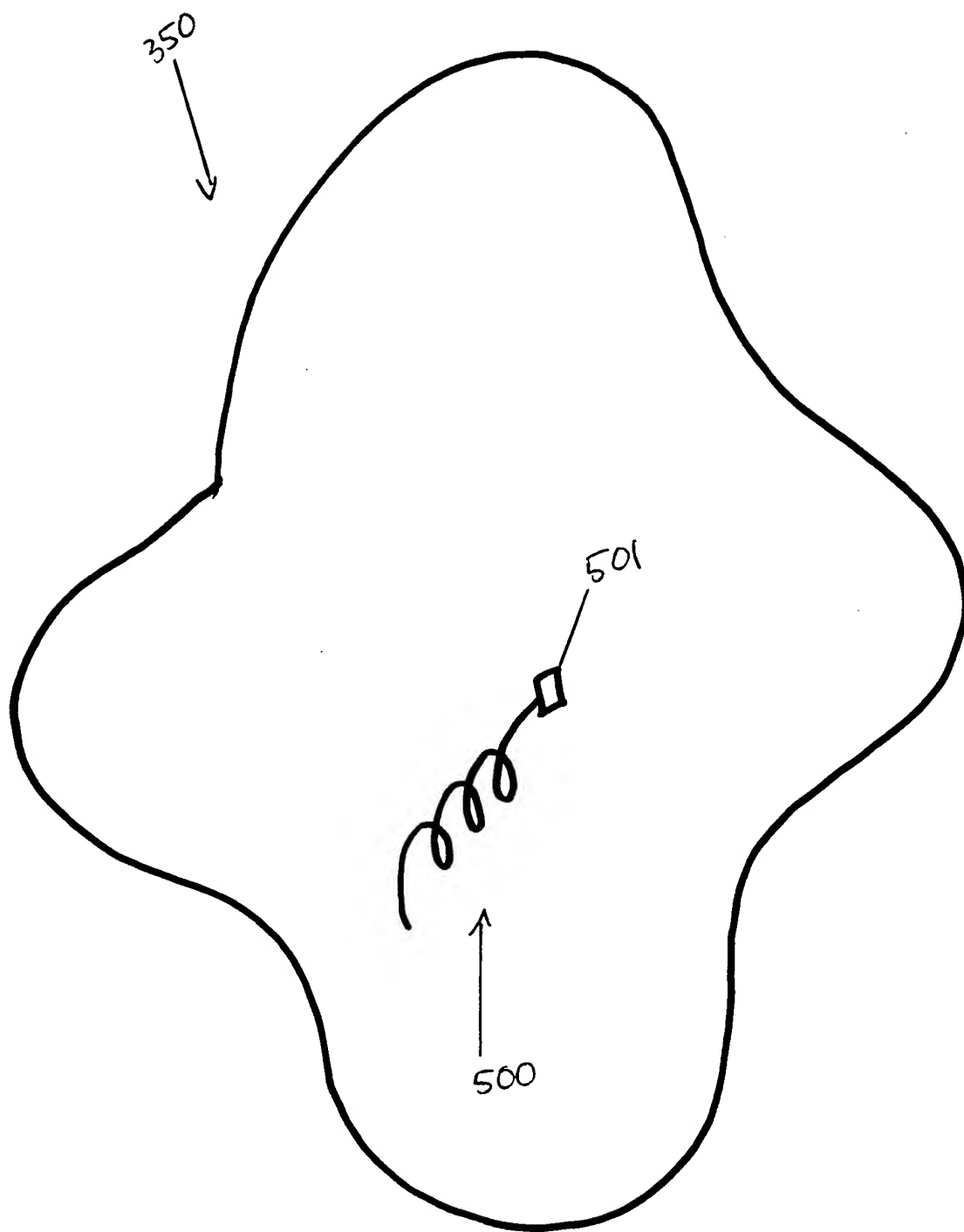


FIG 3

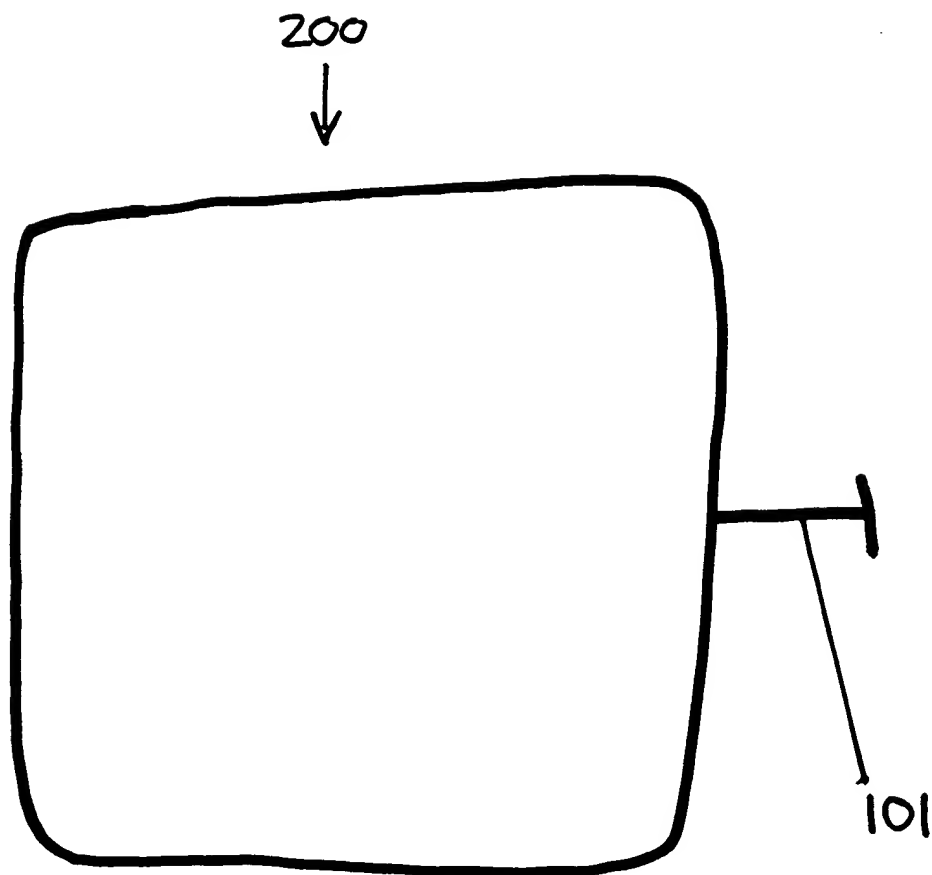


FIG. 4

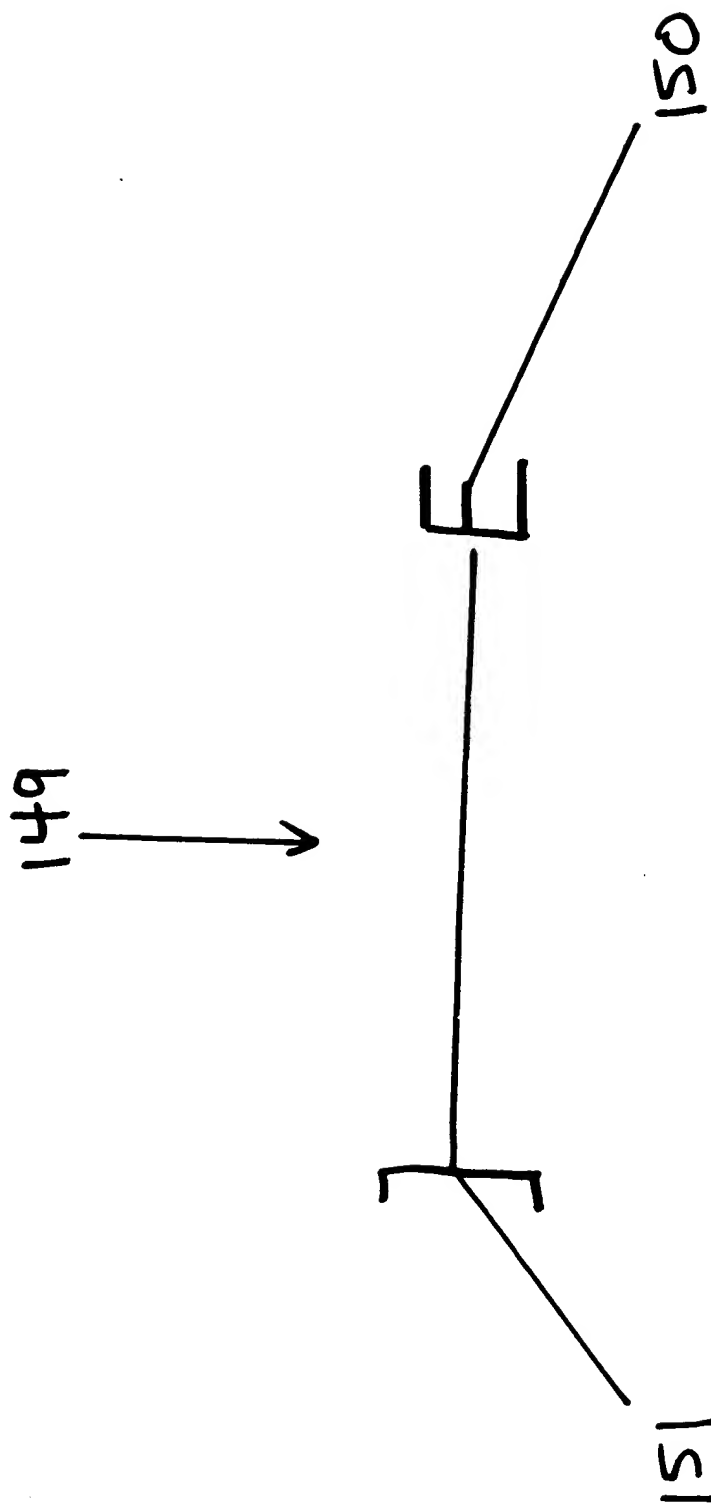


FIG. 5

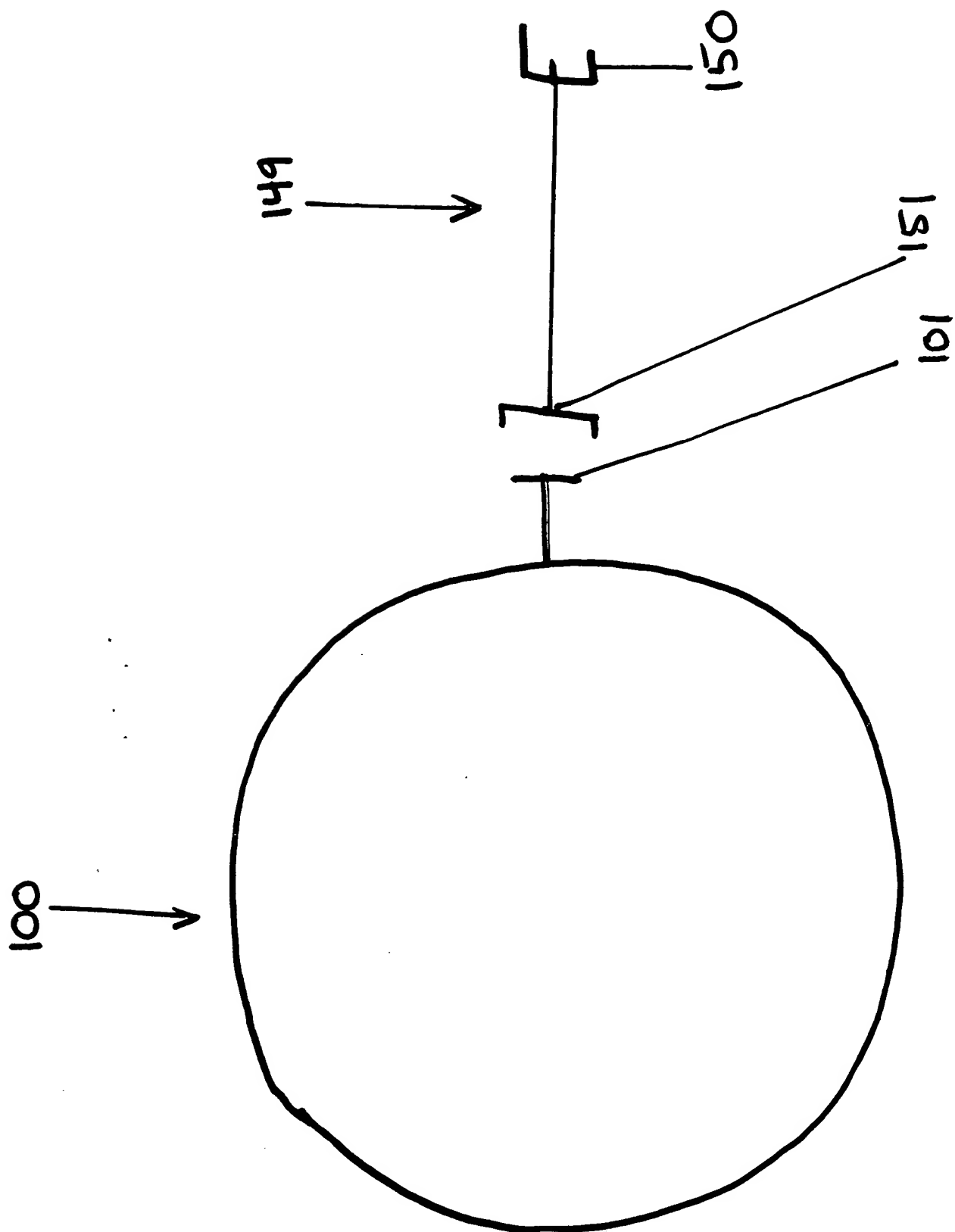


FIG. 6

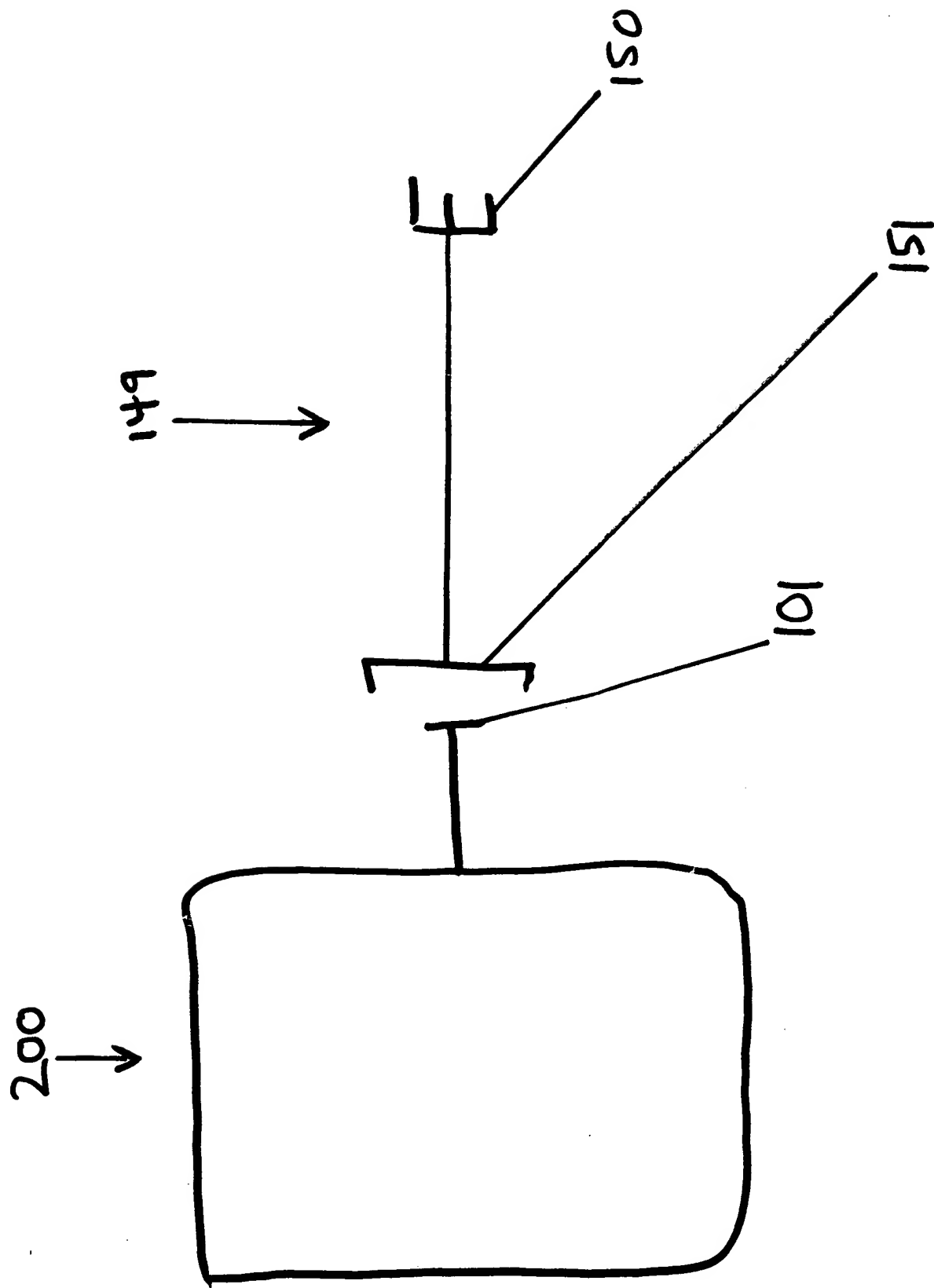


FIG. 7

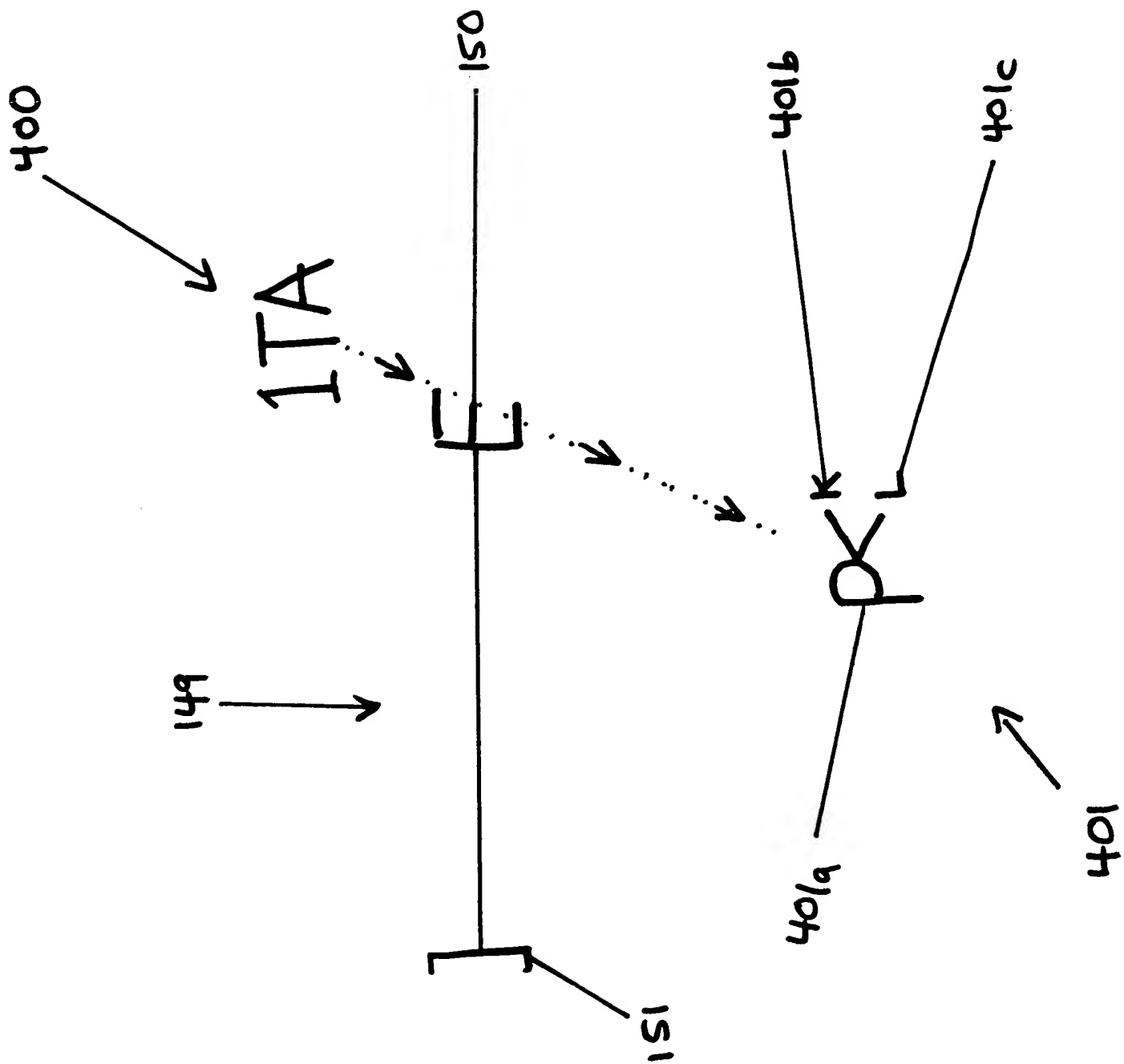


FIG. 8

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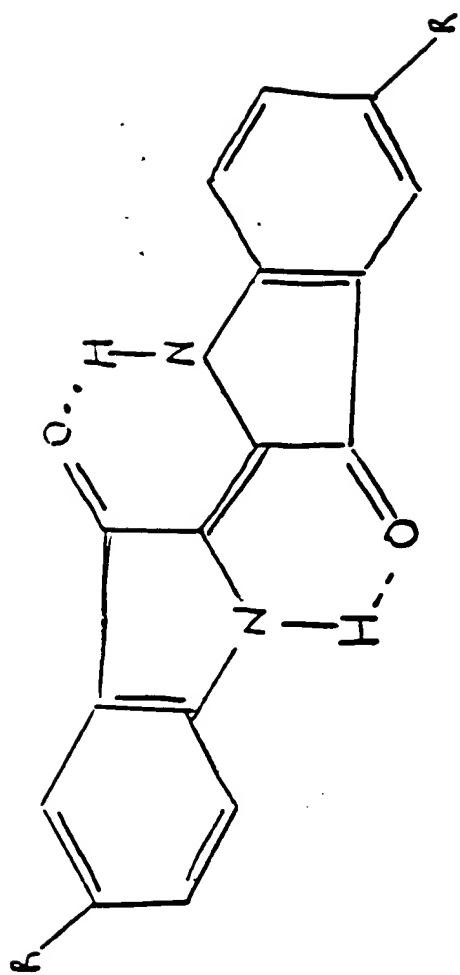


FIG. 9

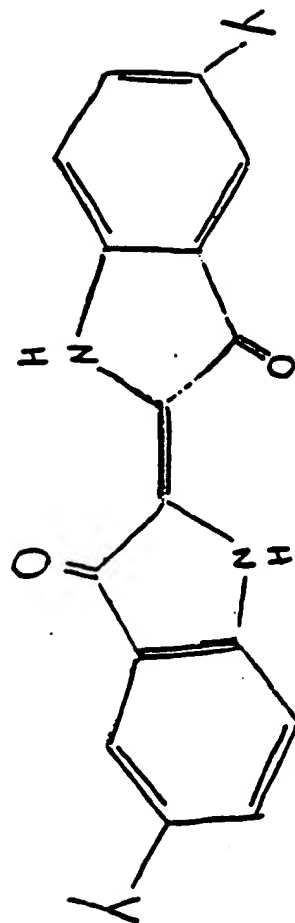


FIG. 10

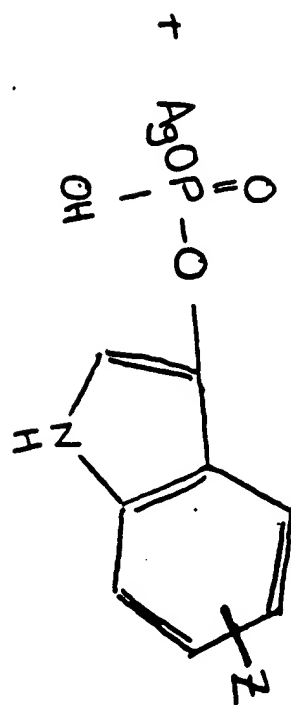
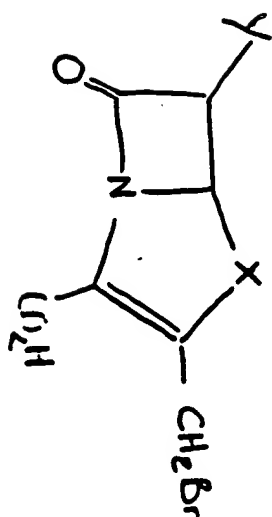
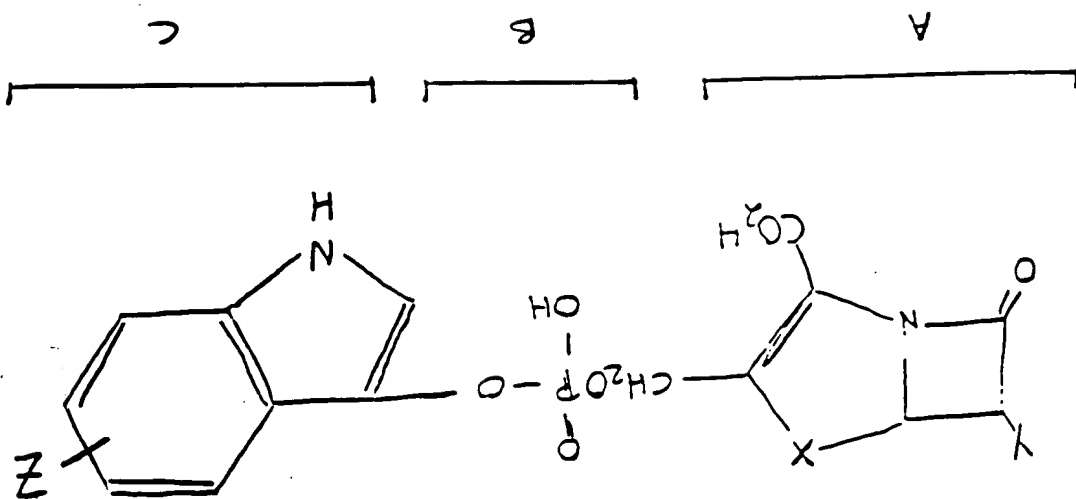


FIG. 11

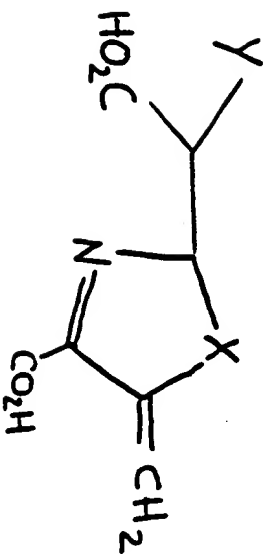
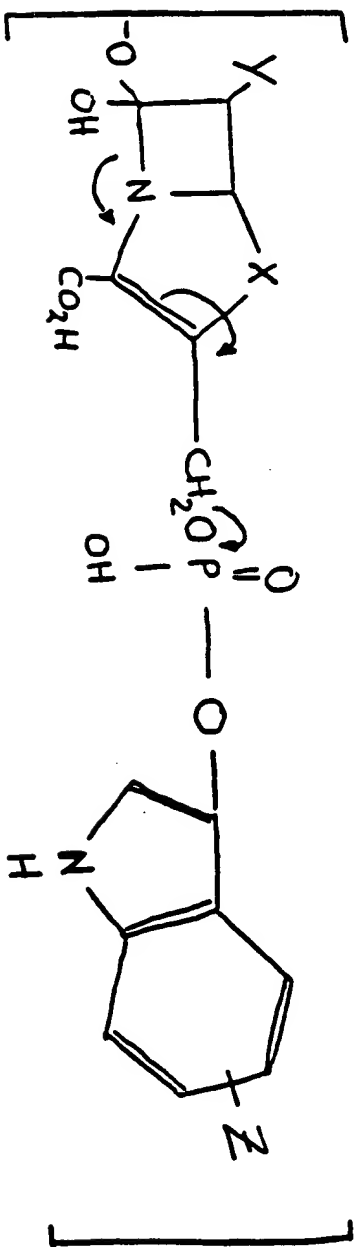
\swarrow
 A-B-C + AgBr↓

FIG. 12

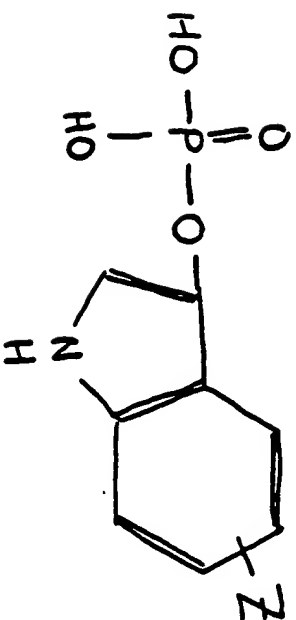


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ABC β -lactamase



+



resulting from the action of β -lactamase opening of the β -lactam and elimination

Indoxyl Phosphate

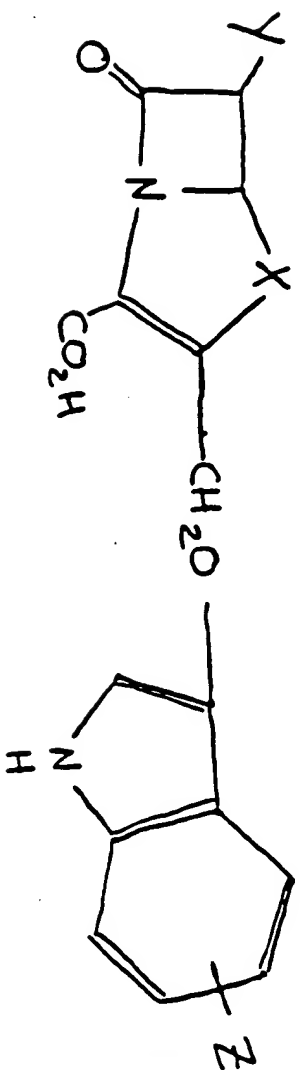
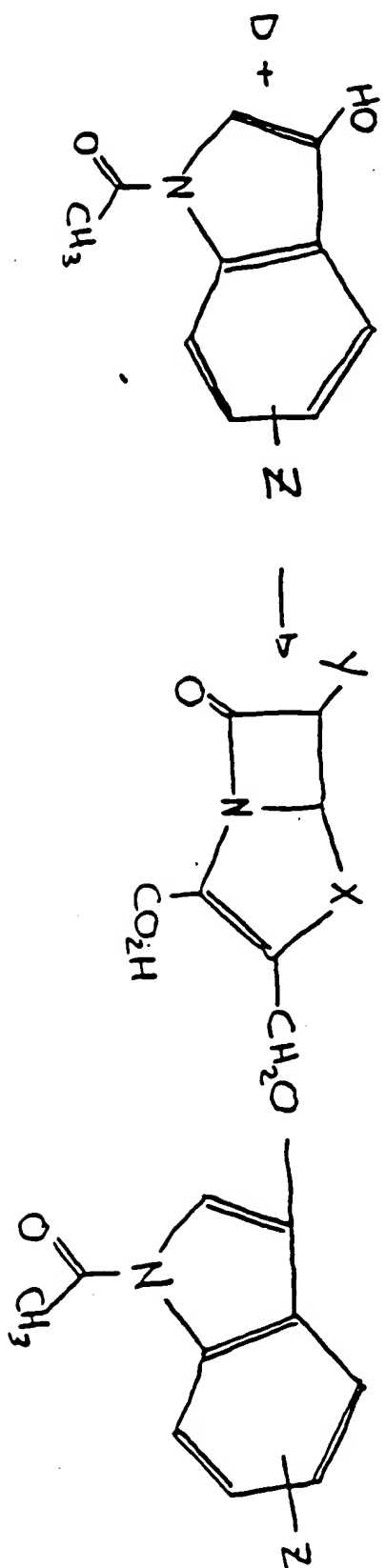
phosphatase

Indoxyl

oxidation and dimerization

precipitate substituted indigo

FIG. 13



Beta lactamase

+

Indoxyl

oxidation and
dimerization

precipitate substituted indigo

FIG. 14

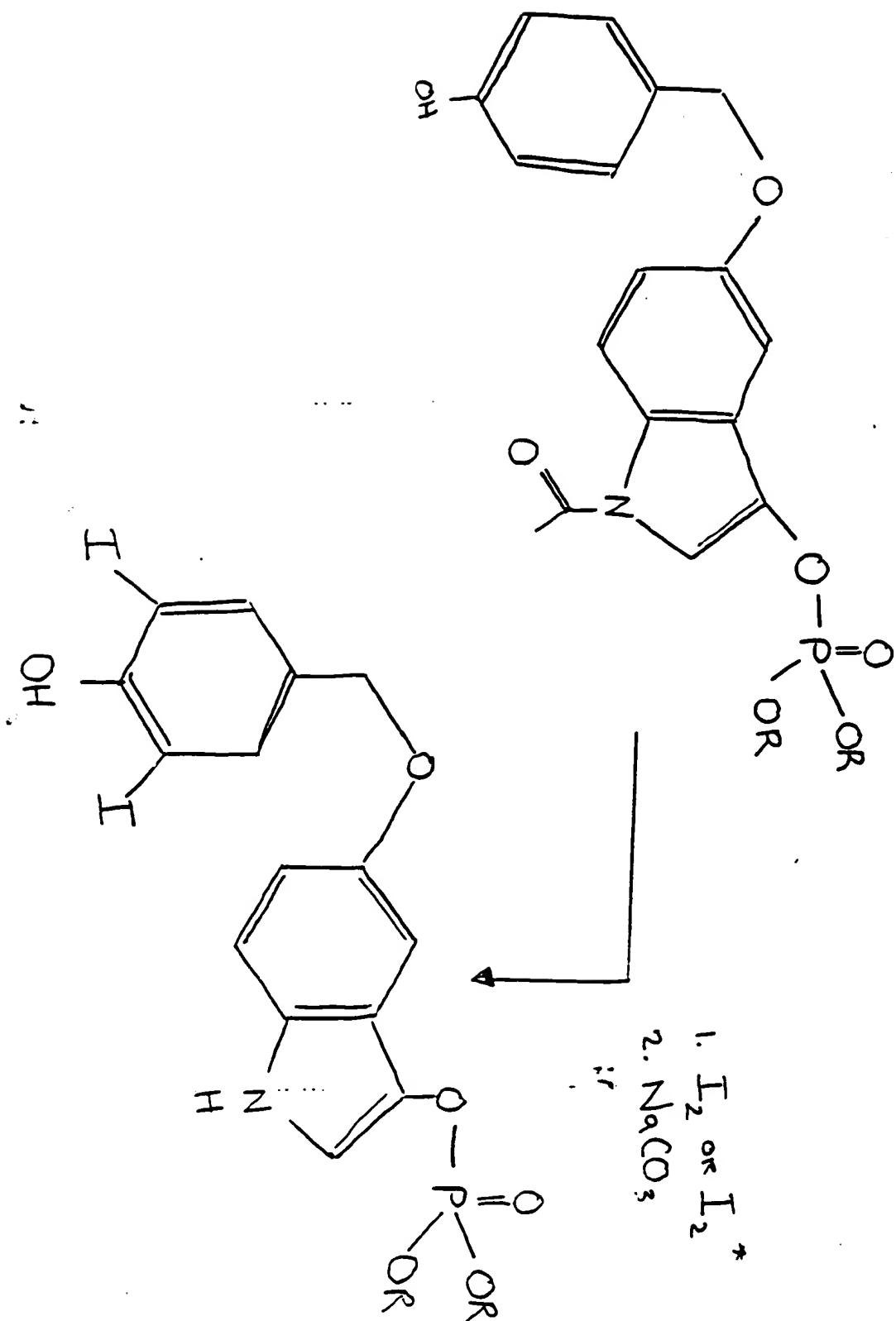
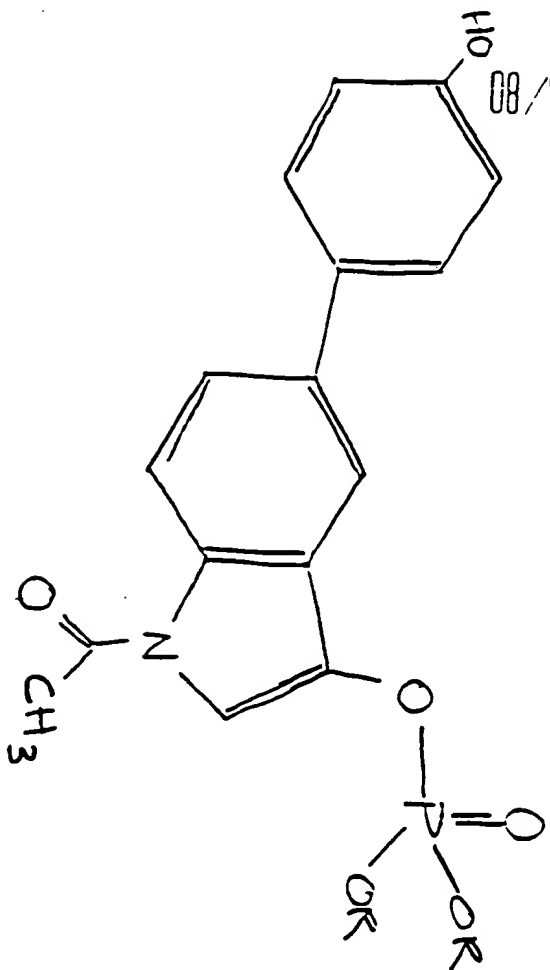


FIG. 15



1. I_2 or I_2^*
2. $NaHCO_3$

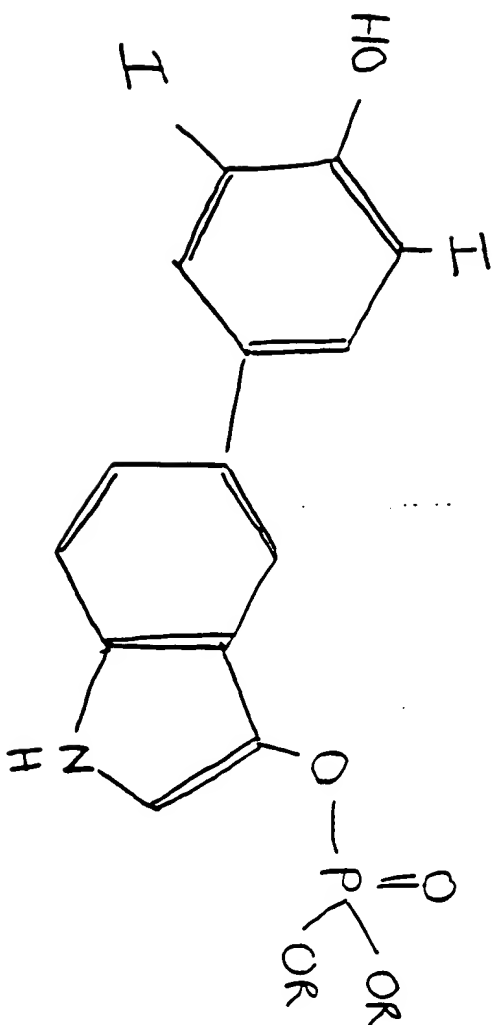


FIG. 16

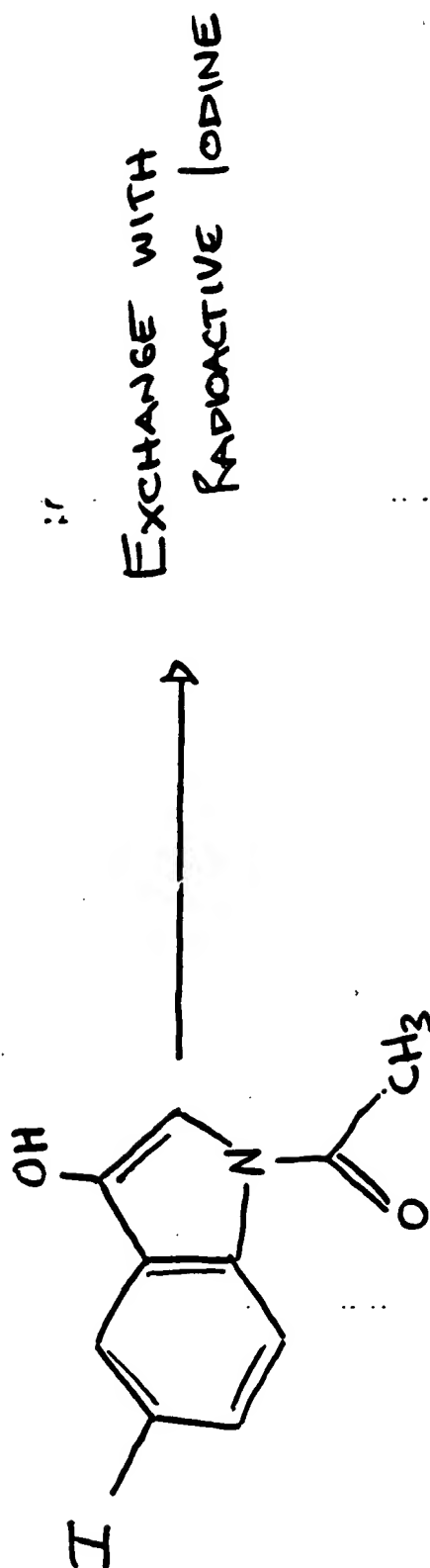
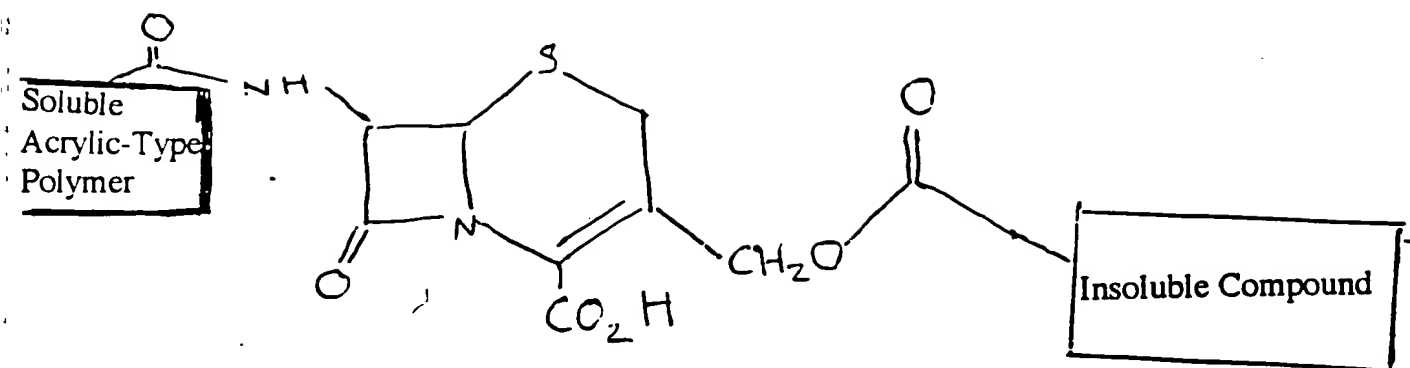
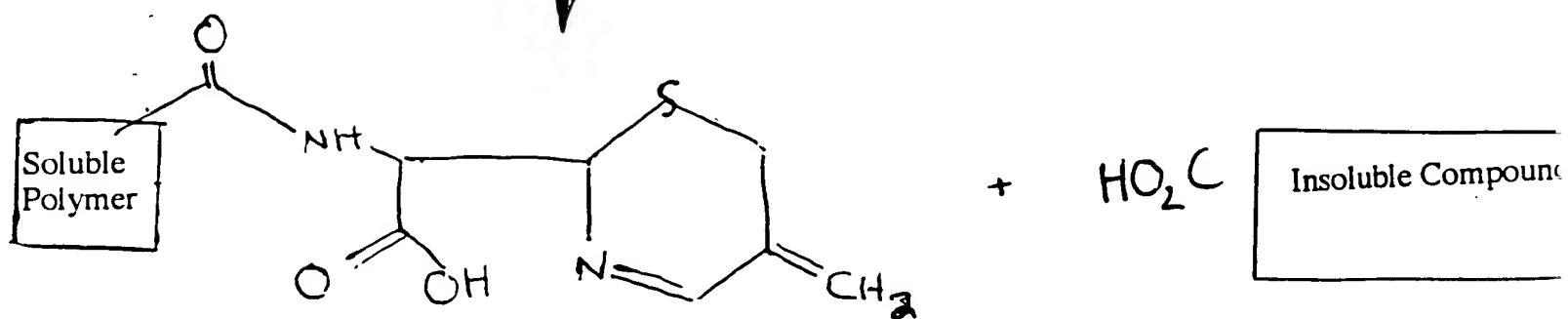


FIG. 17



7-aminocephalosporanic acid

Beta Lactamase



As shown the cephalosporin residue stays attached to the soluble polymer

FIG. 18

FIG. 19

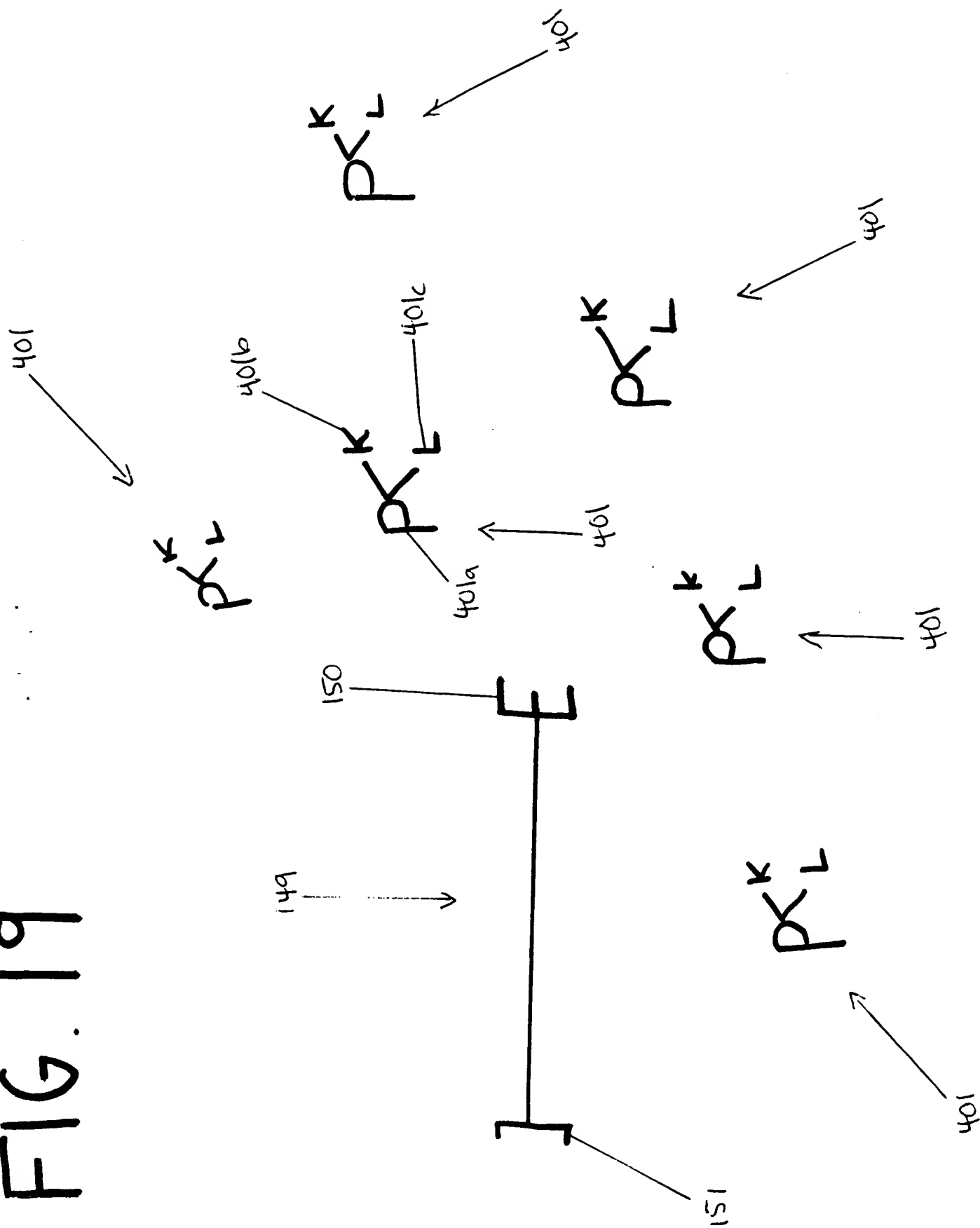
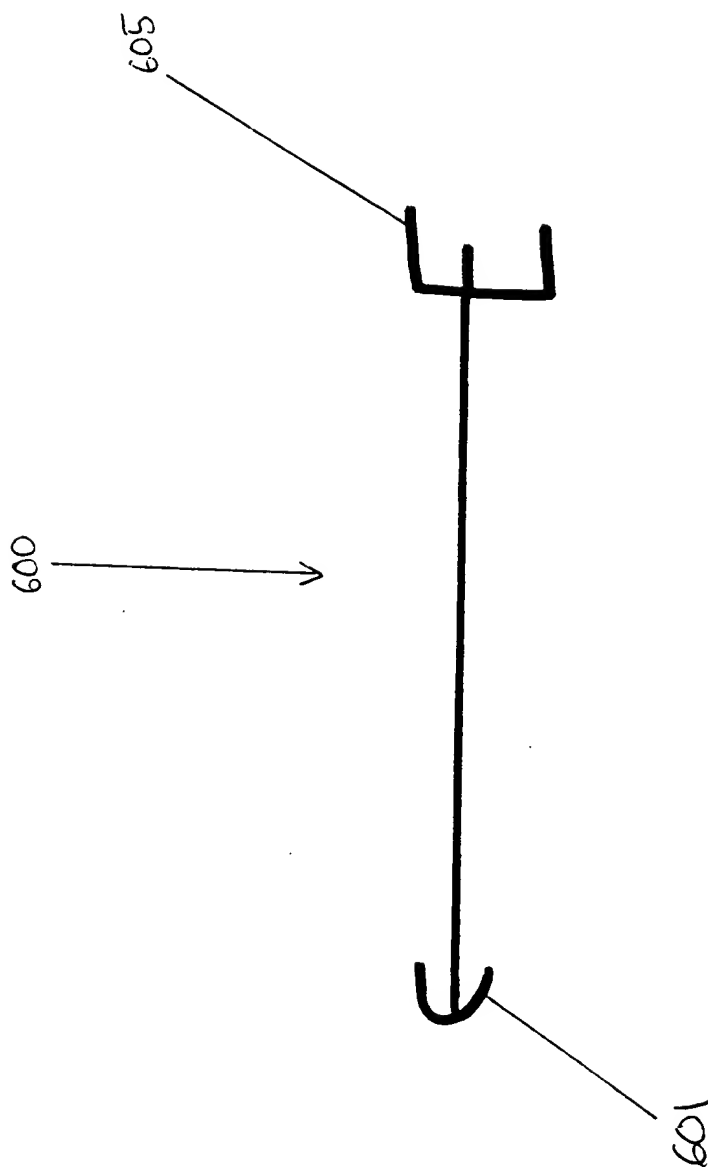


FIG. 20



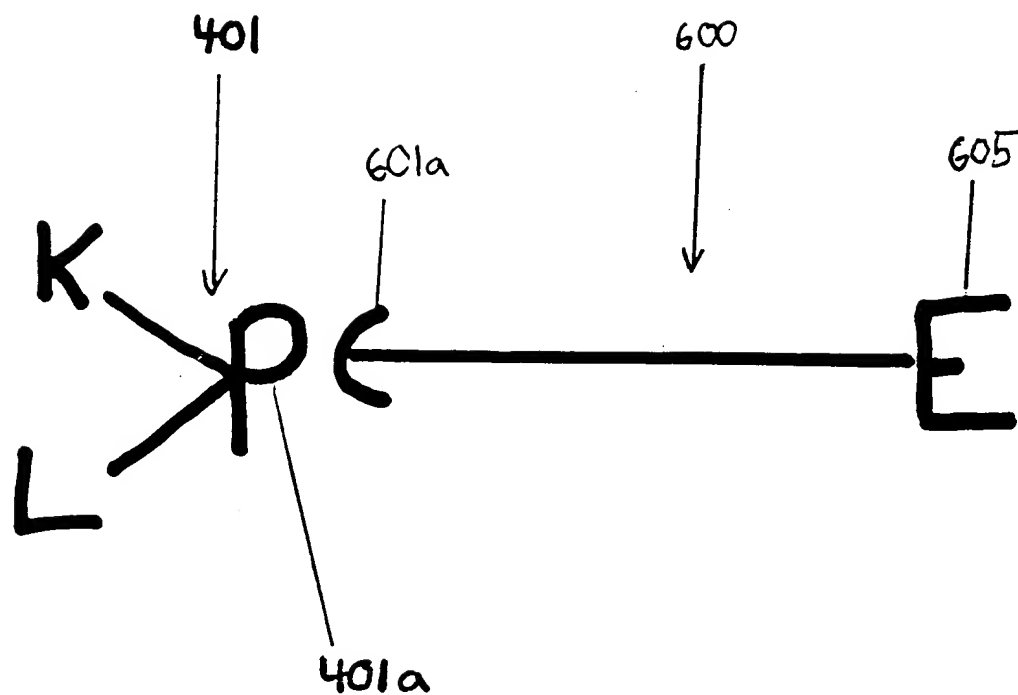


FIG. 21

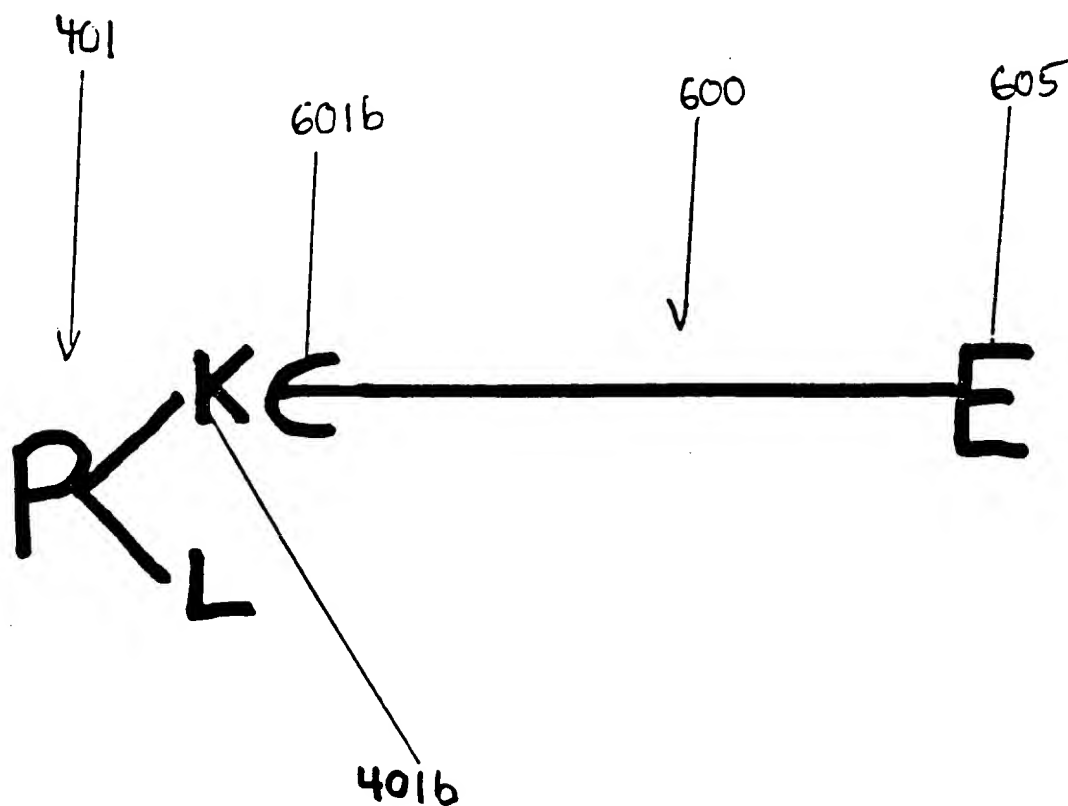


FIG. 22

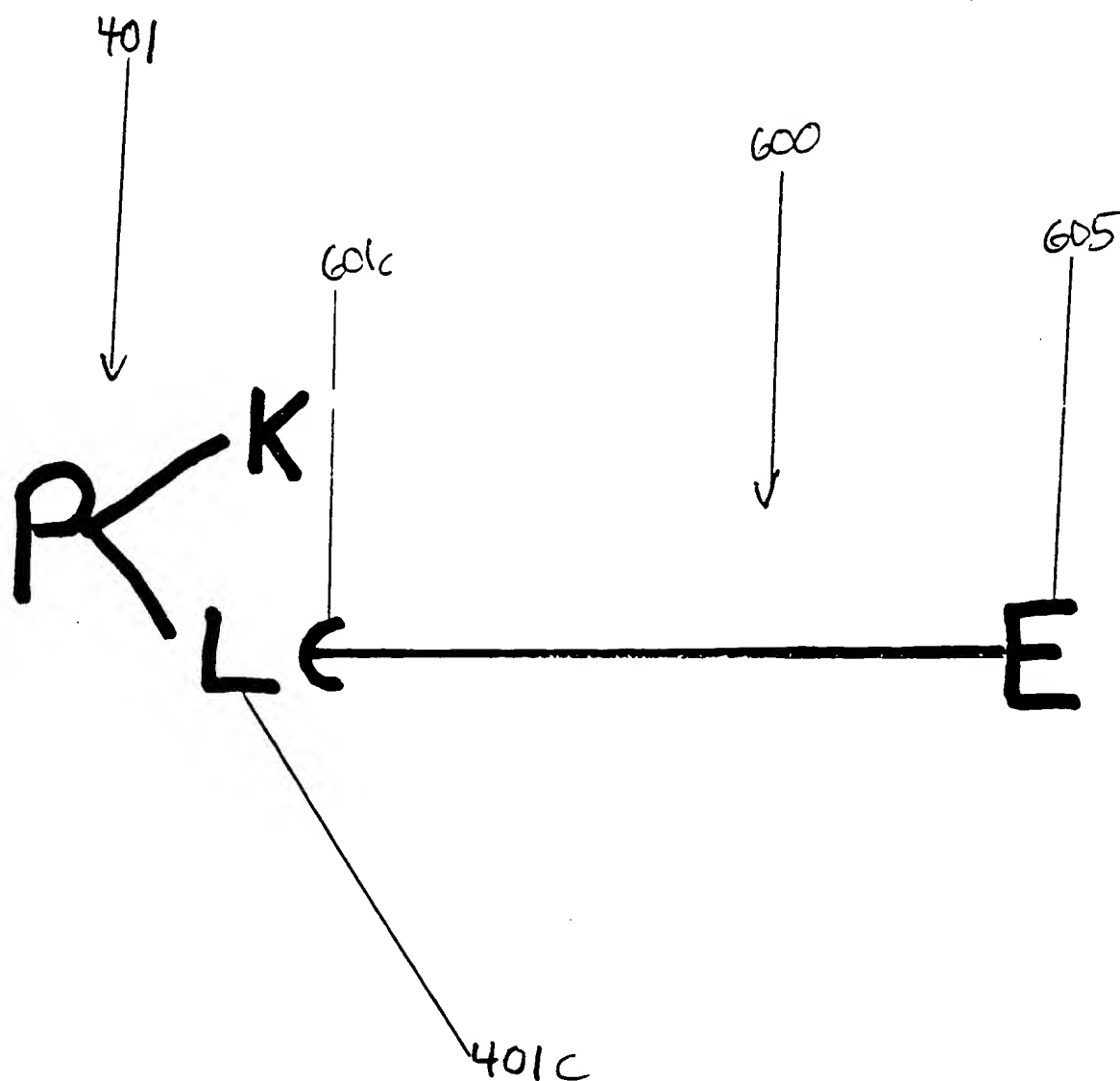


FIG. 23

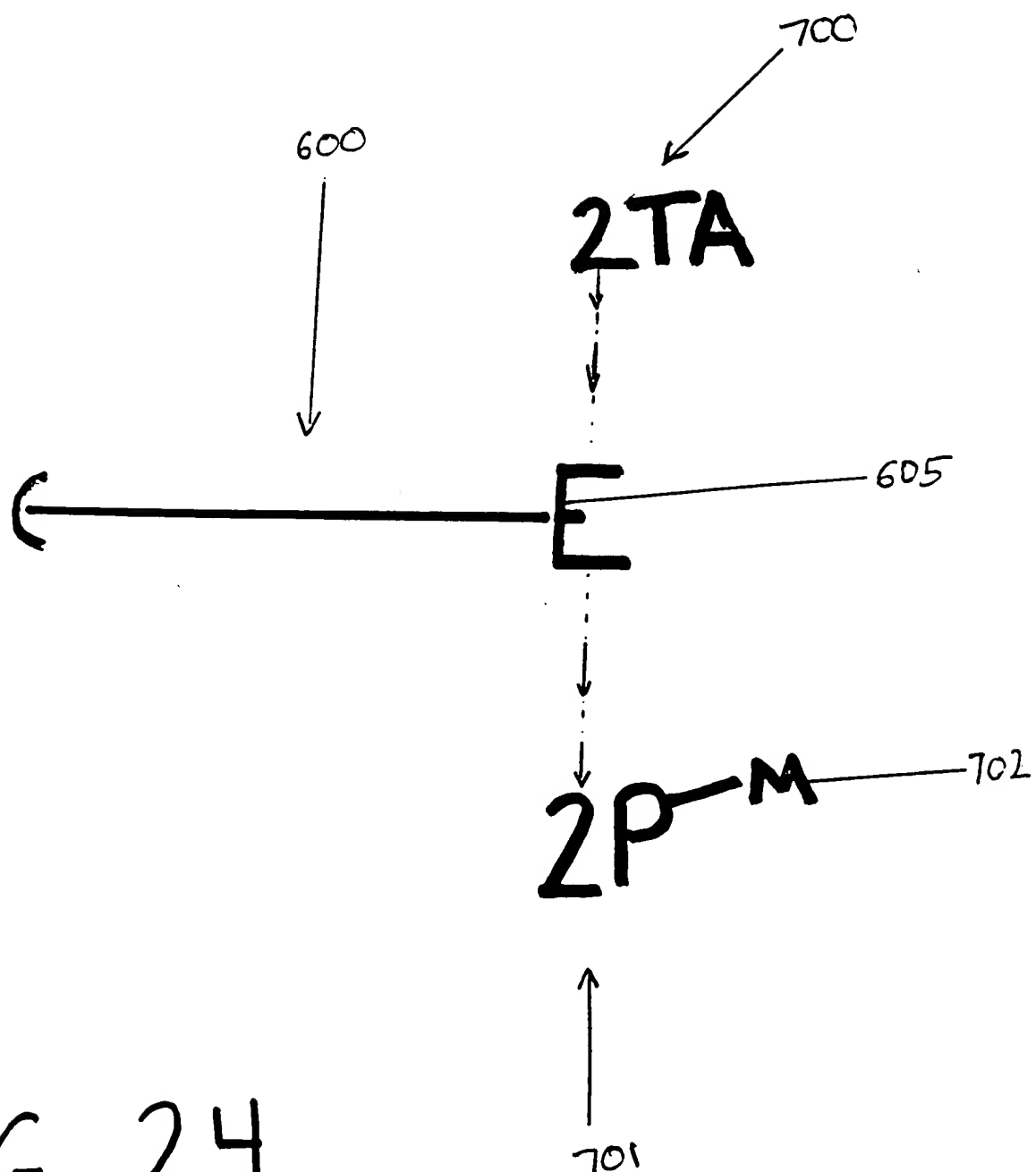


FIG. 24

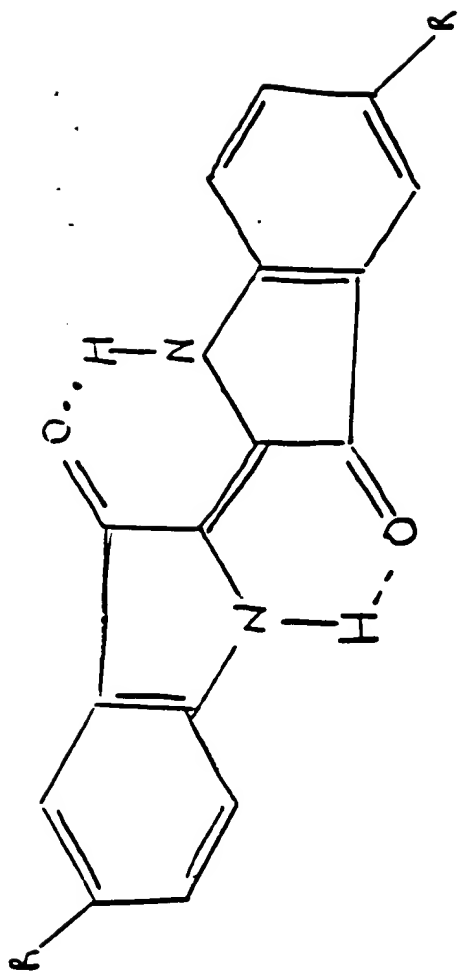


FIG. 25

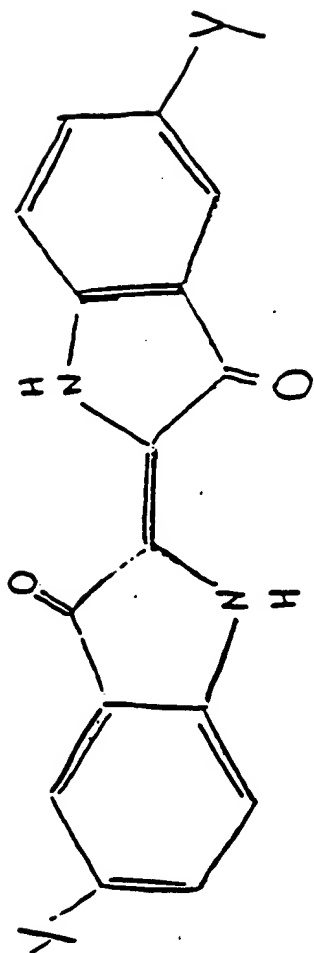


FIG. 26

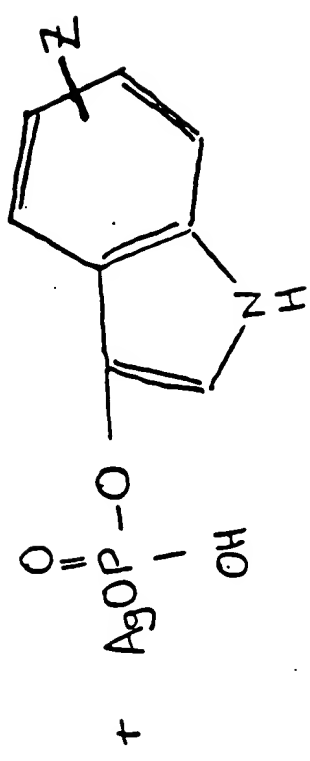
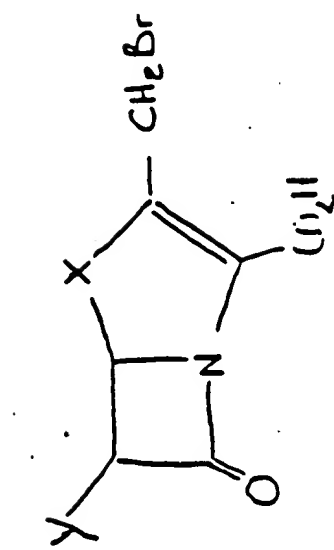


FIG. 27



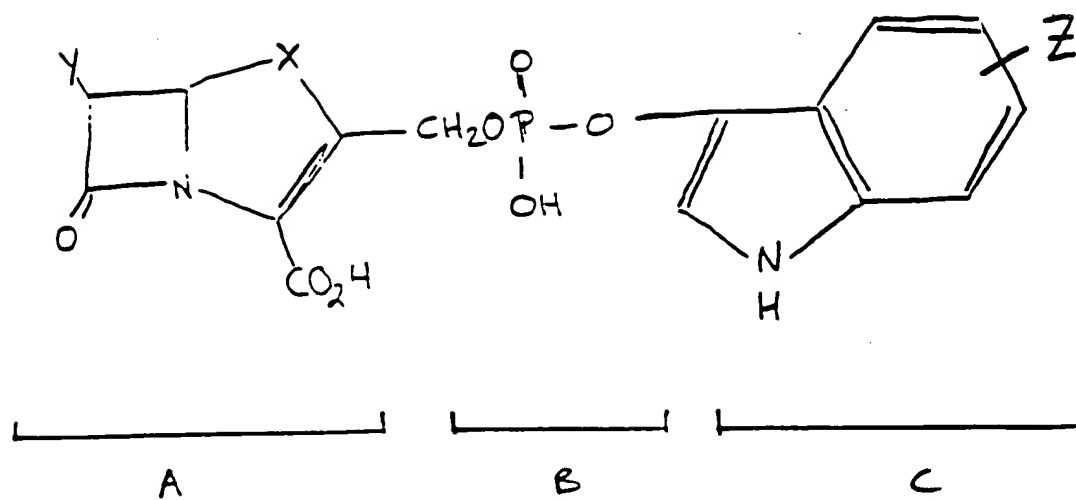


FIG. 28

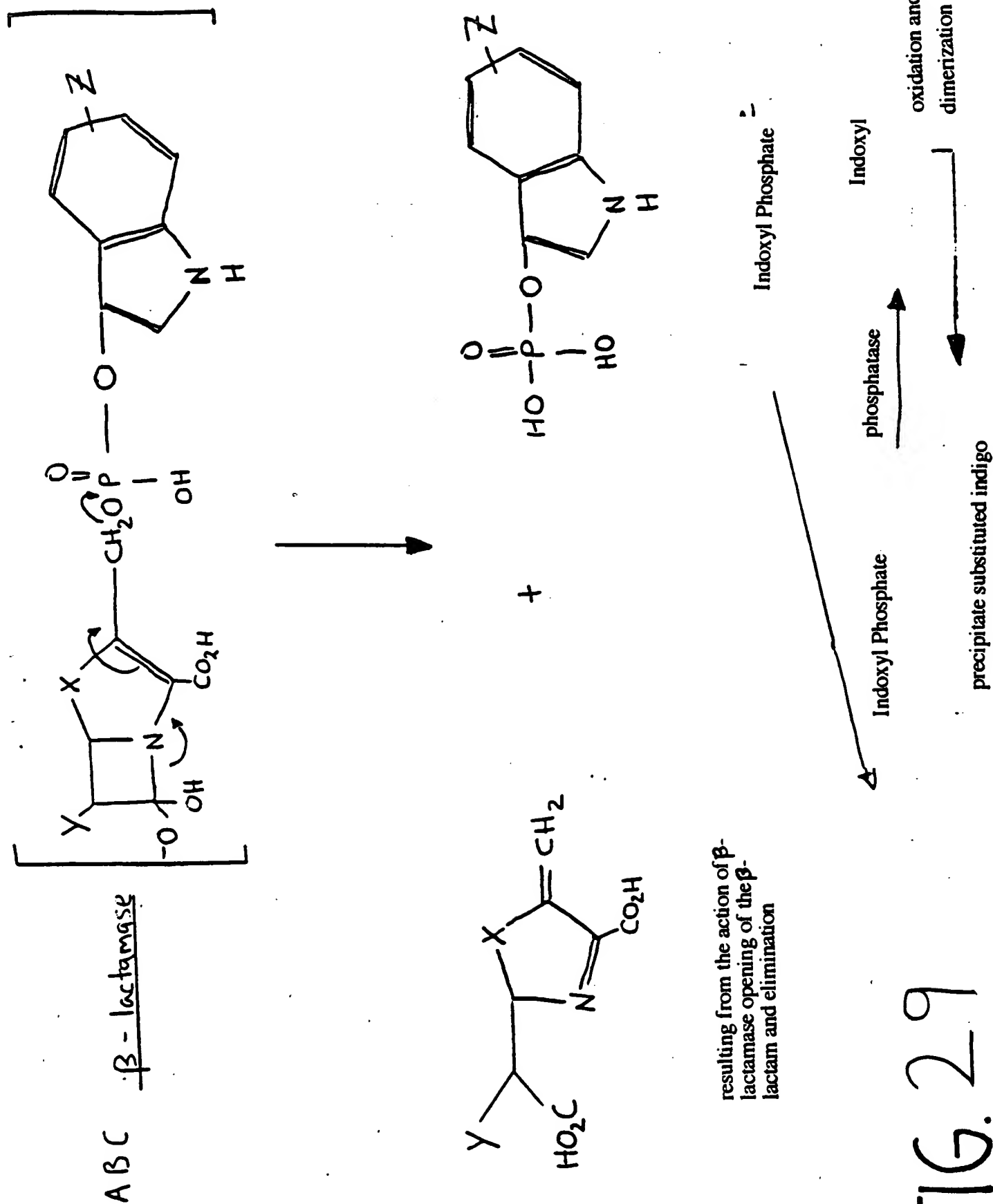
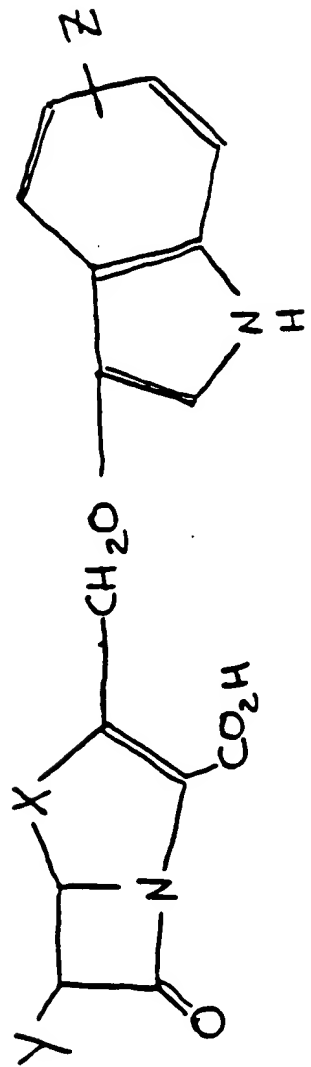
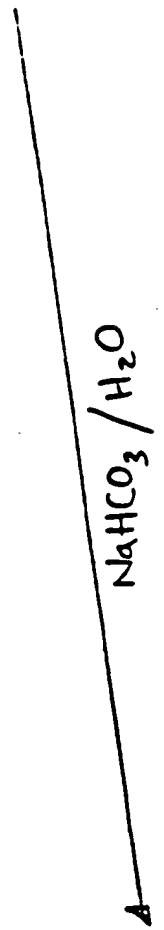
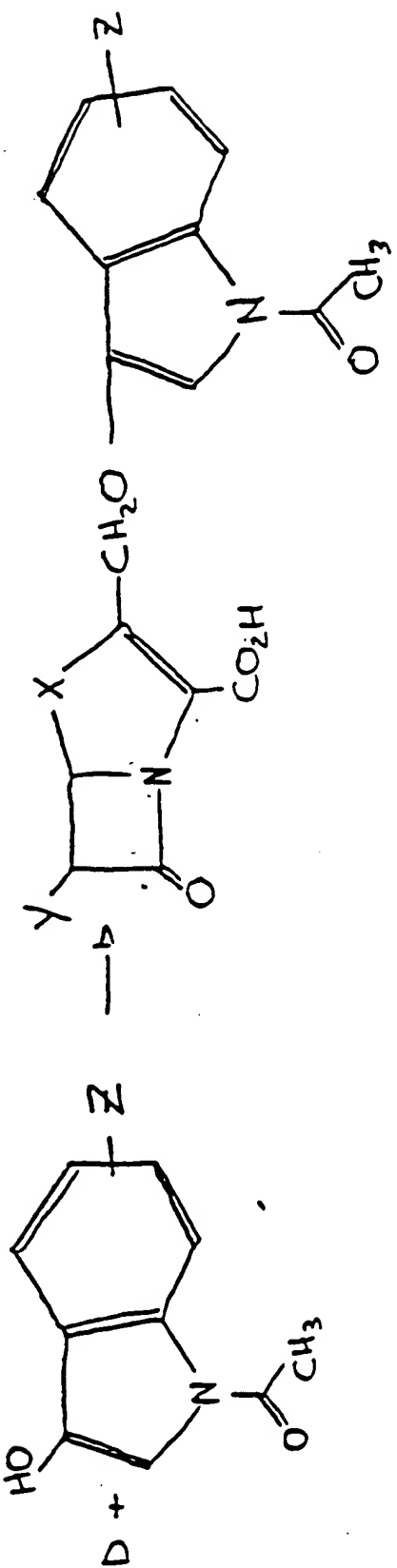


FIG. 29



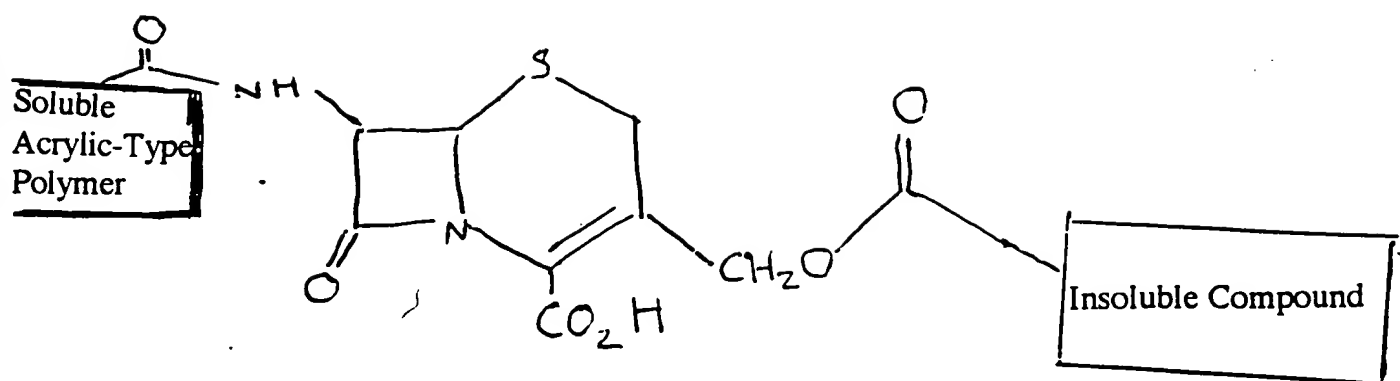
Beta lactamase

+ Indoxyl



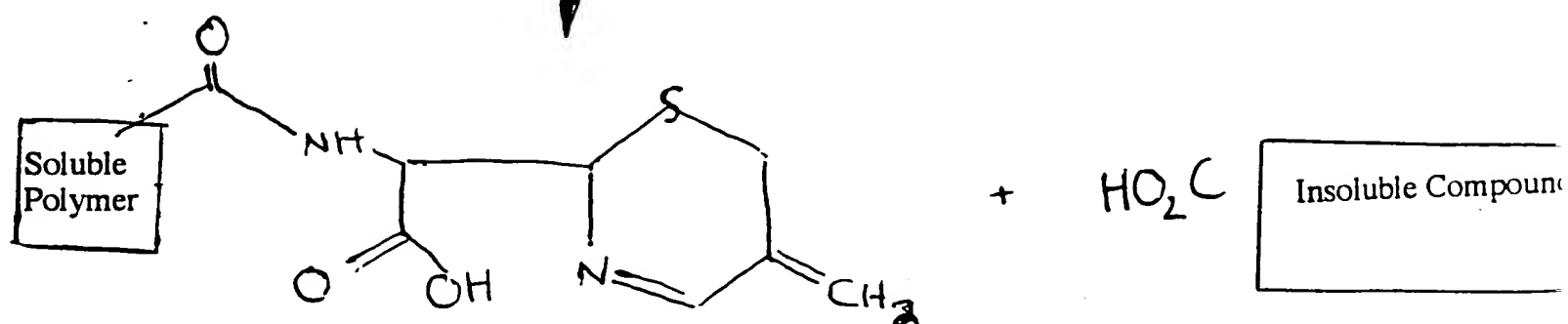
oxidation and dimerization

FIG. 30



7-aminocephalosporanic acid

Beta Lactamase



As shown the cephalosporin
residue stays attached to the
soluble polymer

FIG. 31

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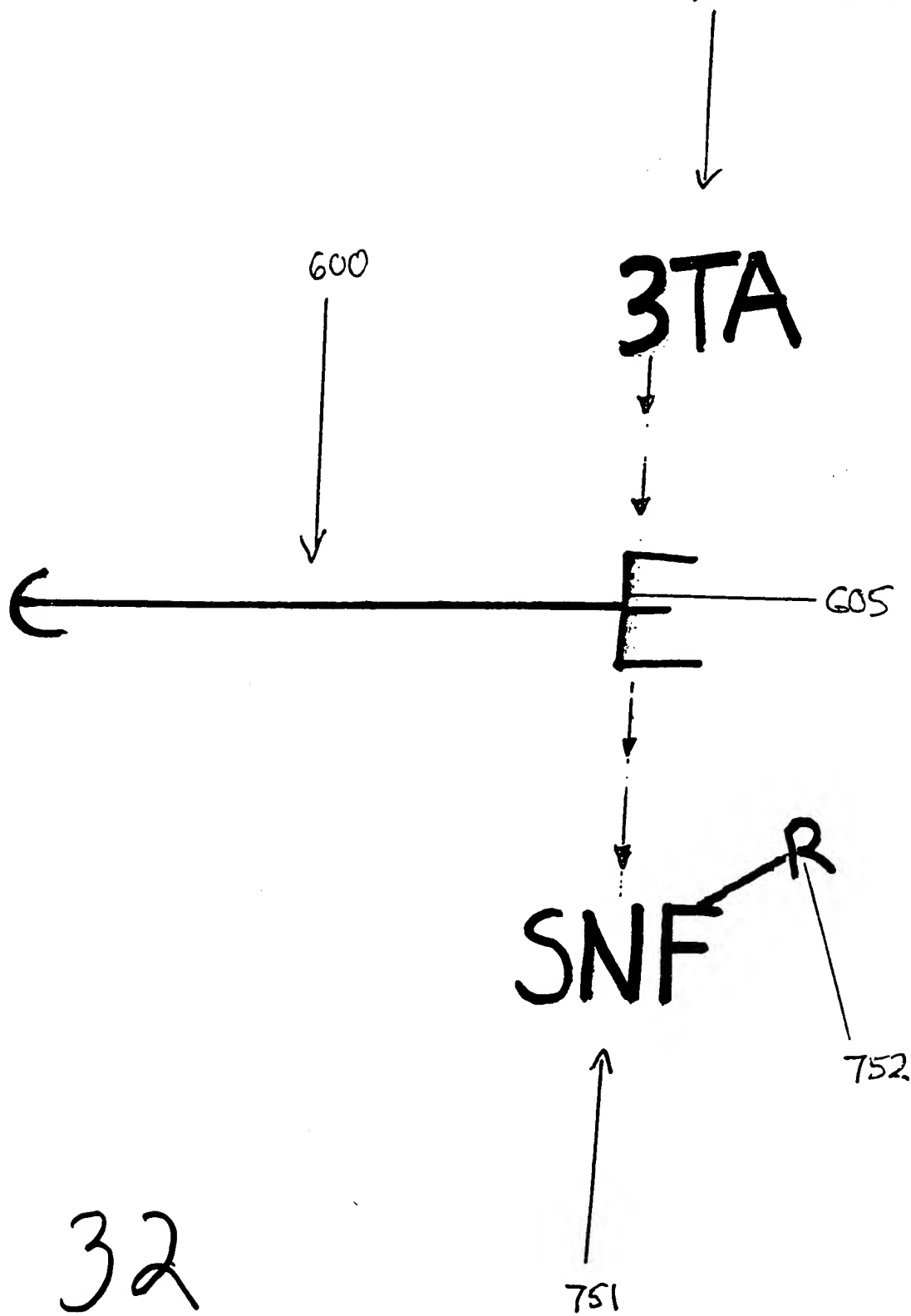
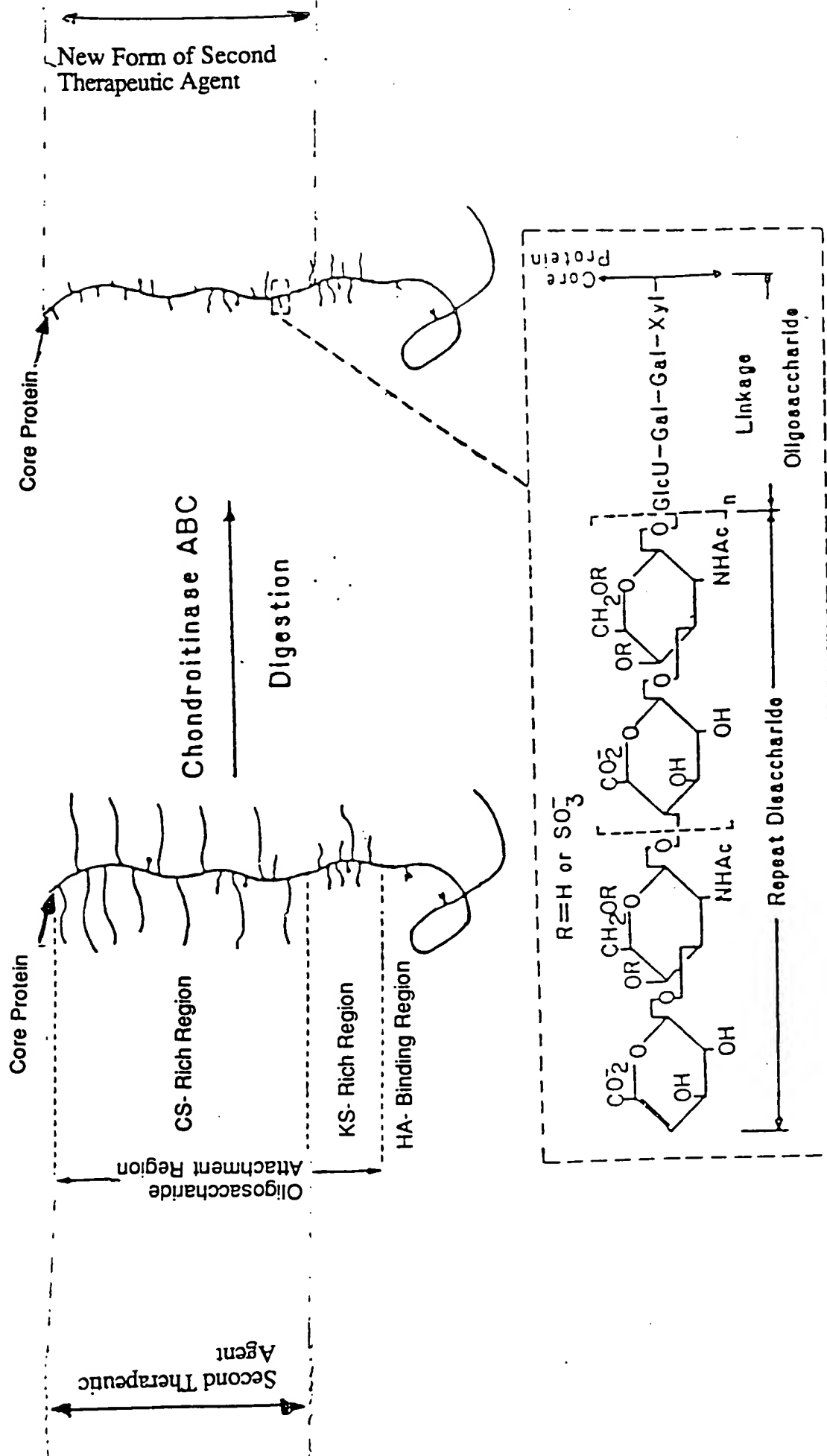


FIG. 32



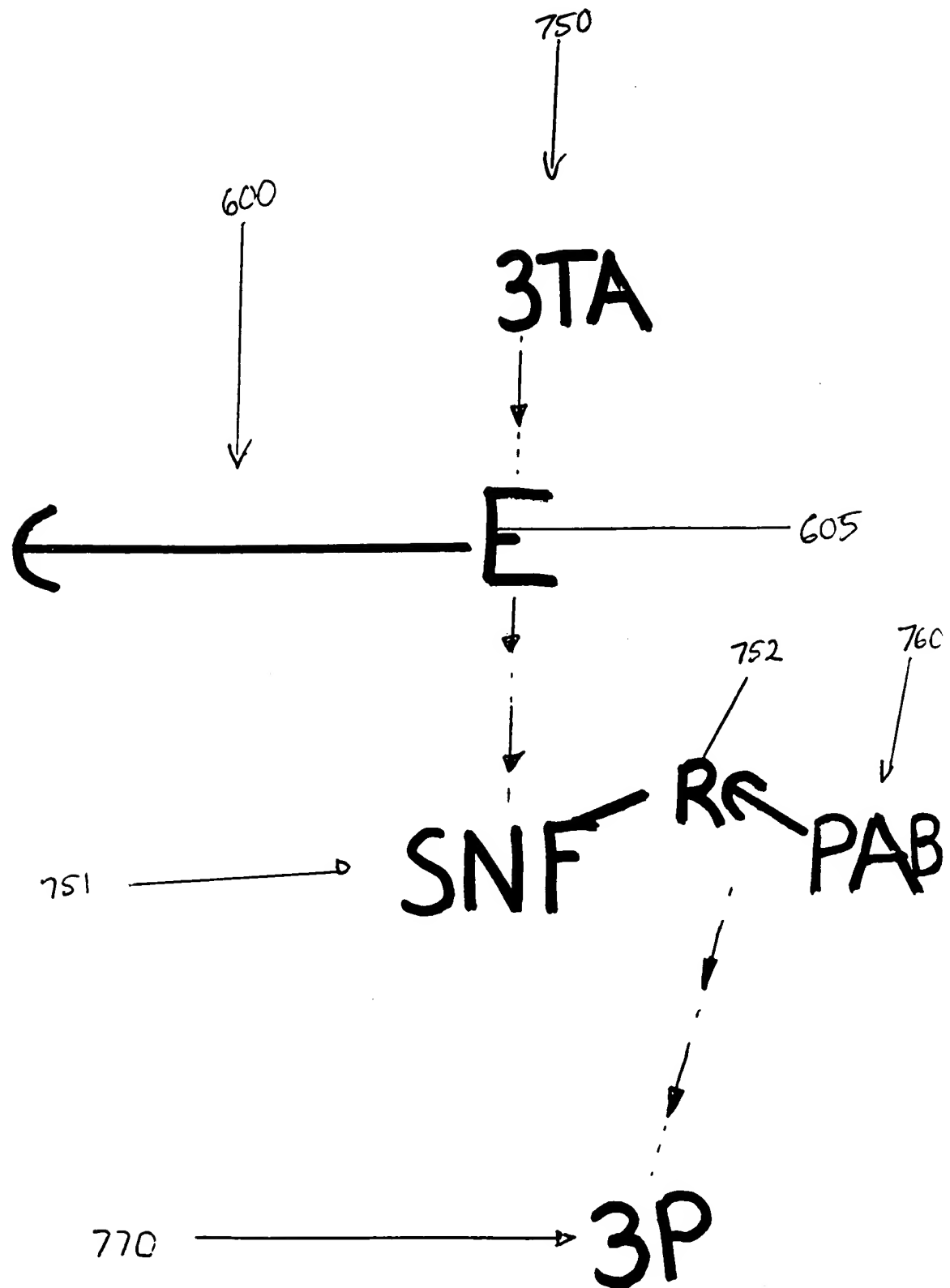


FIG. 34

FIG. 35

300

401b

401

1001

1002

4

1000

301

401c

401a

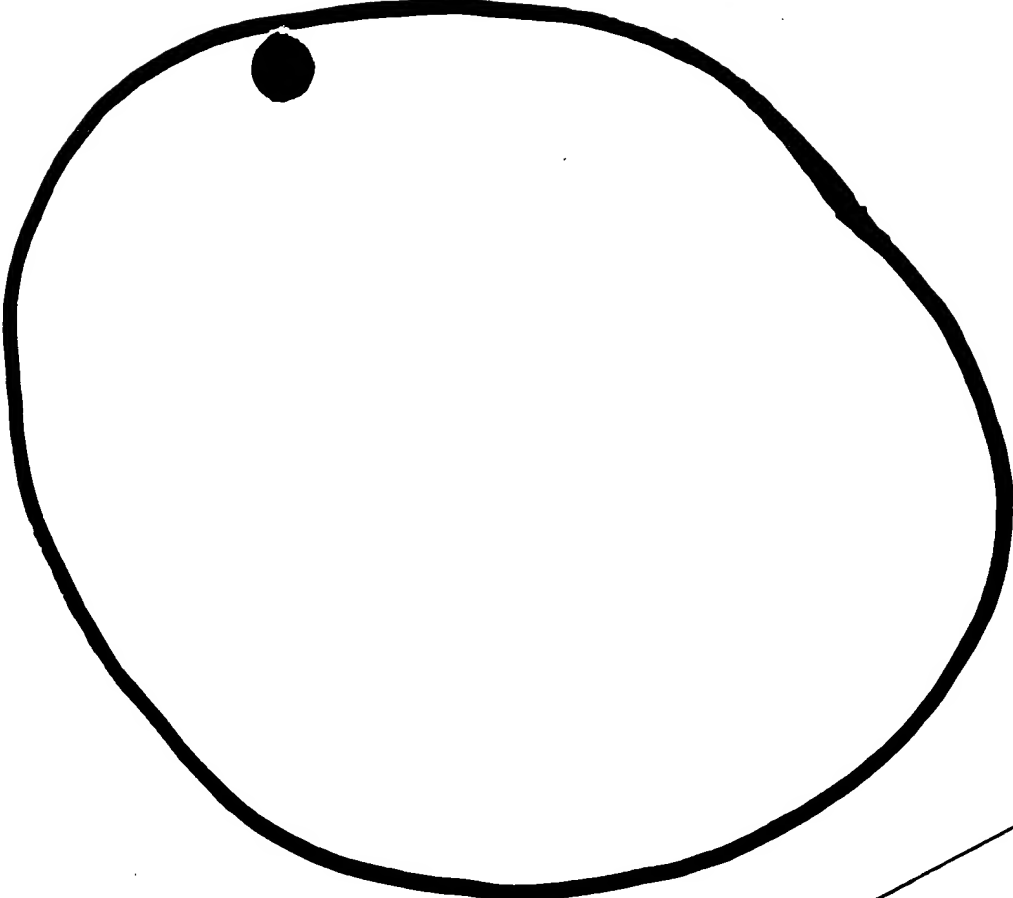
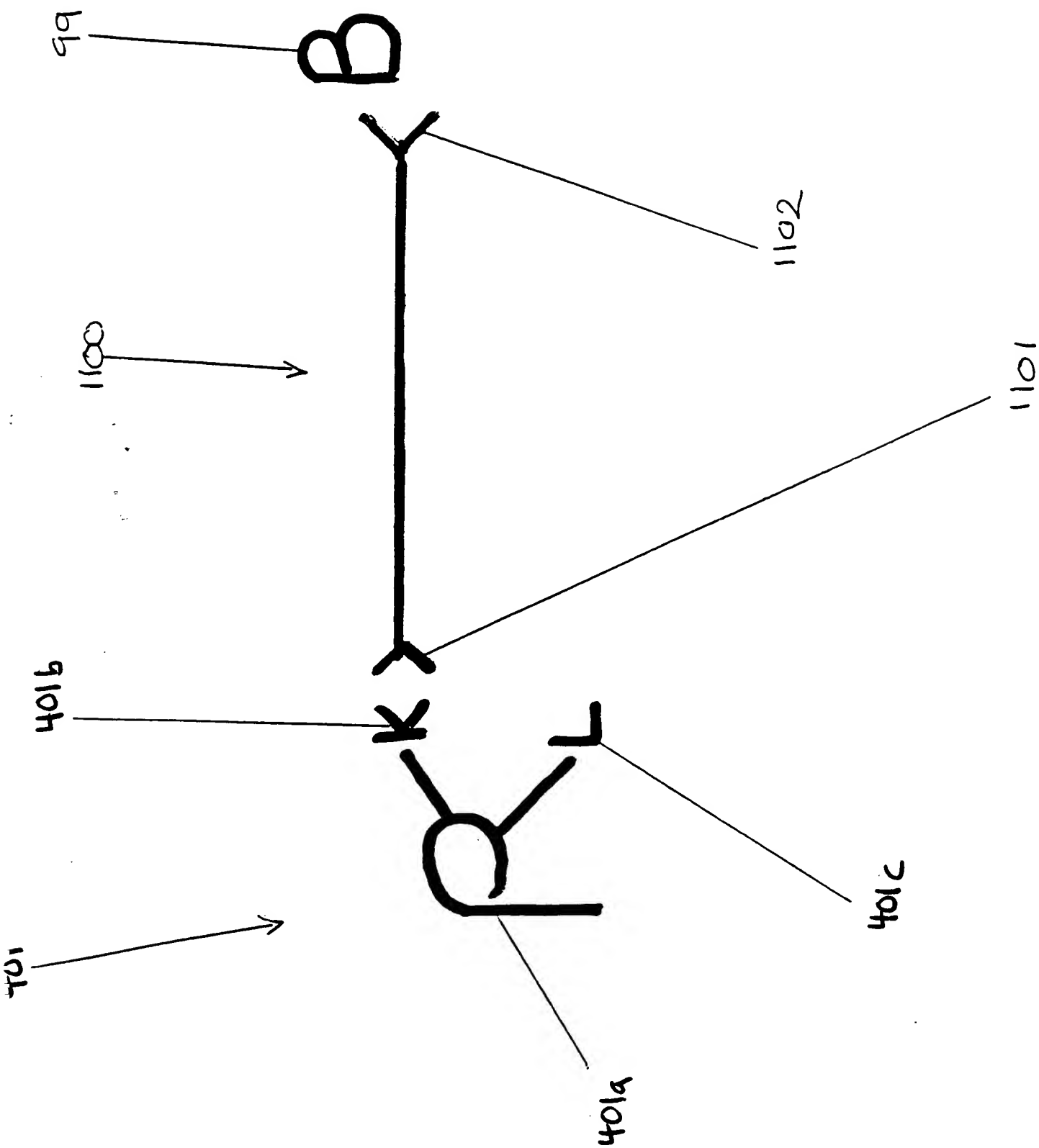


FIG. 36



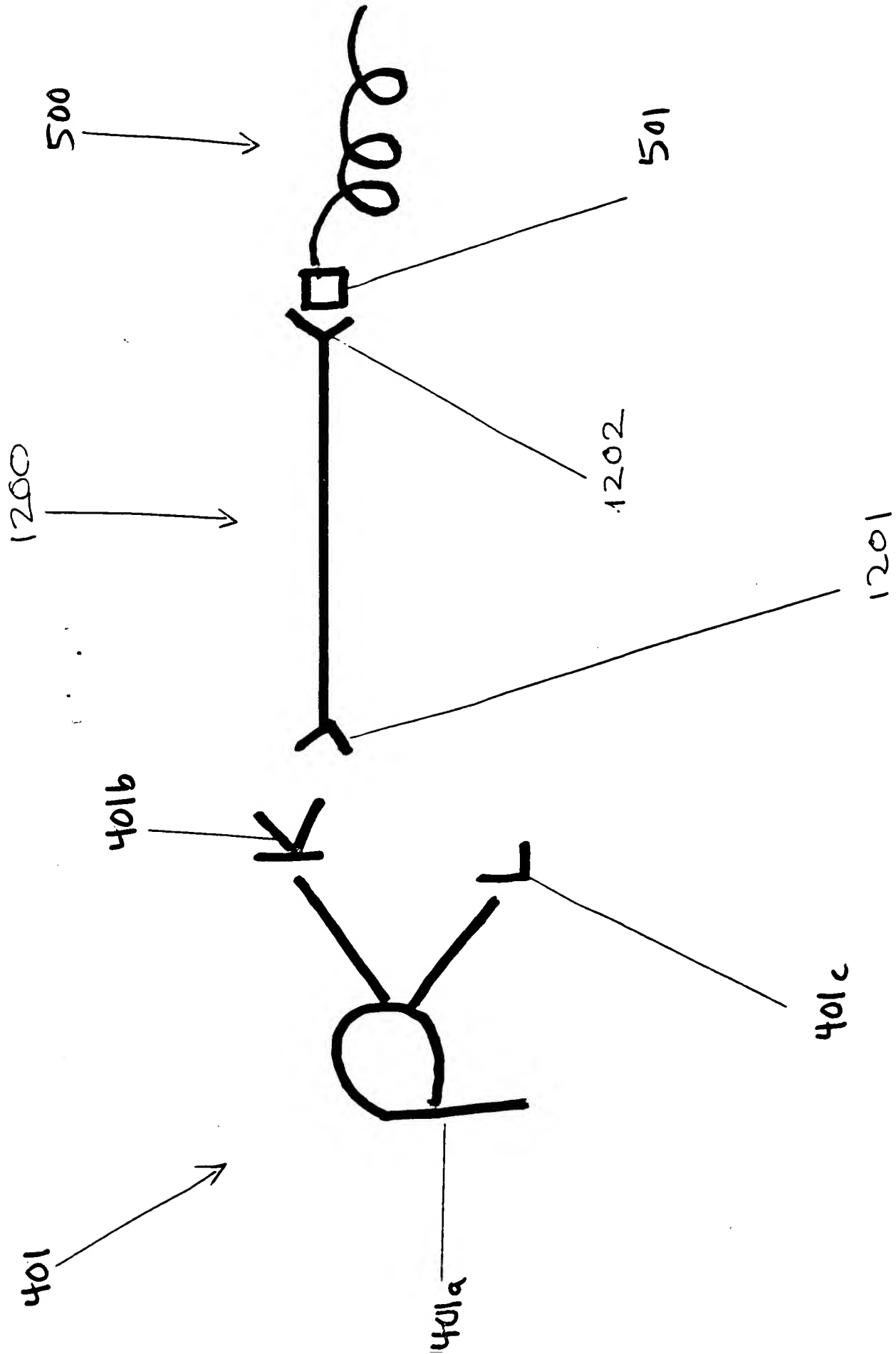
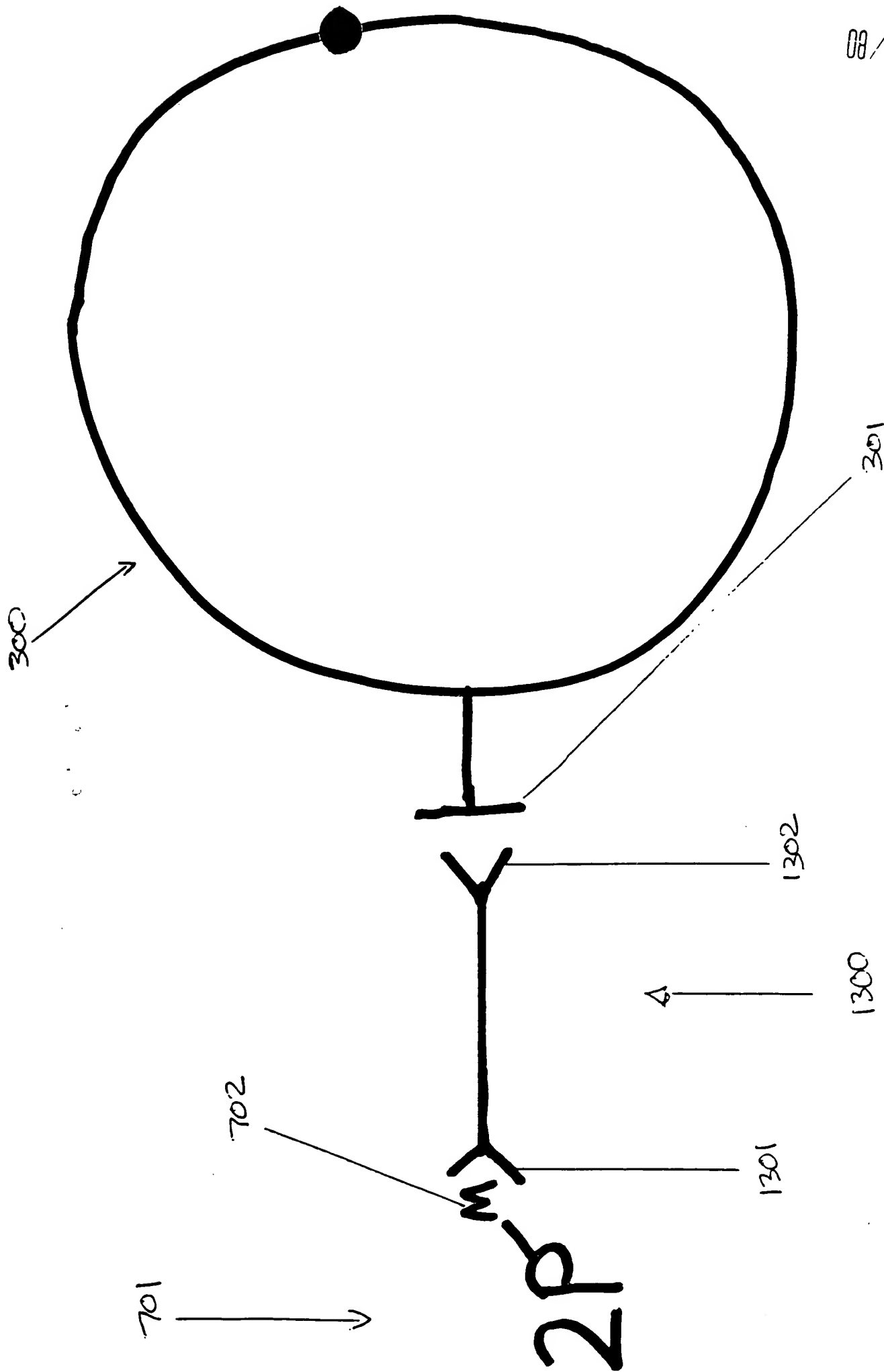
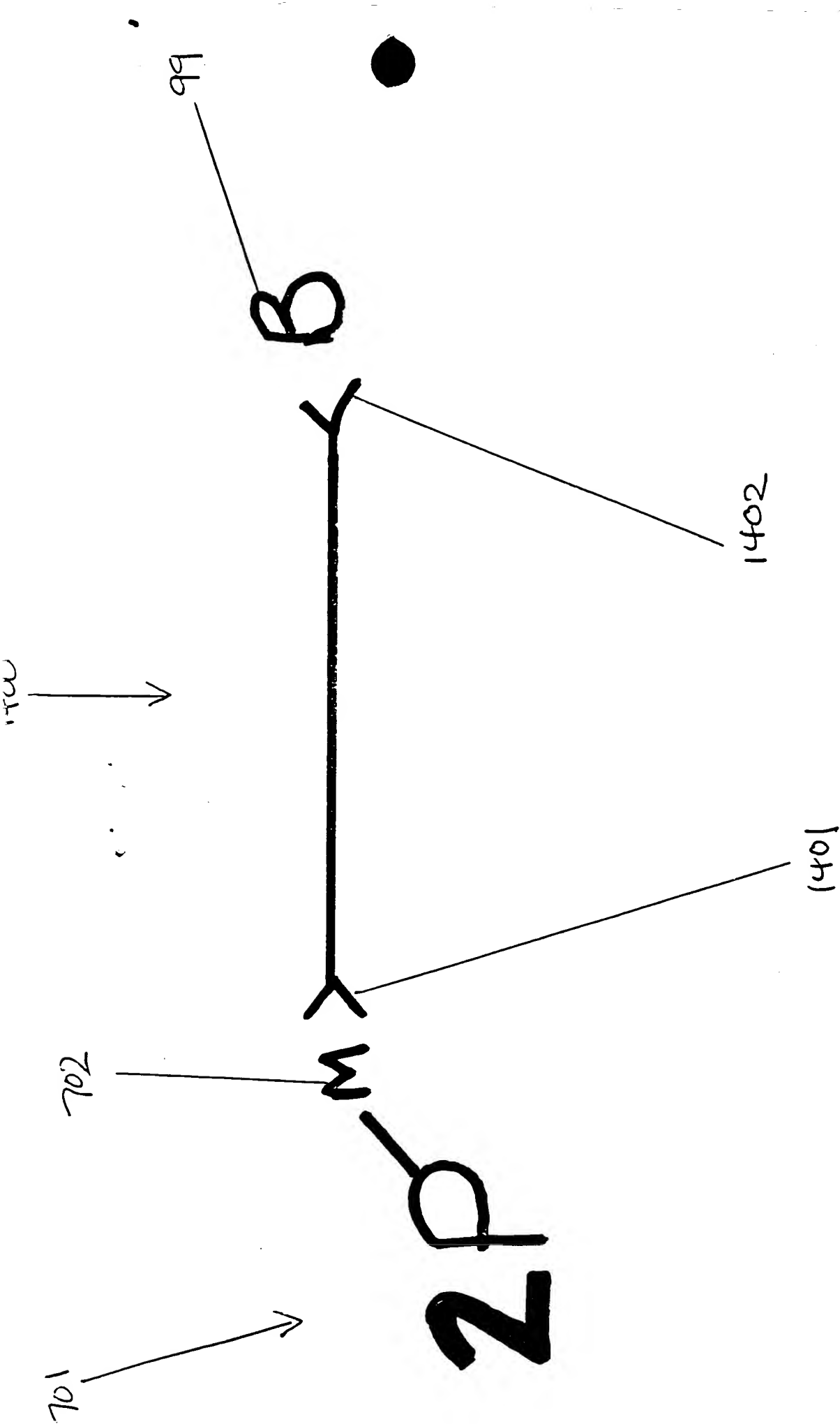


FIG. 37

FIG. 38





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FIG. 39

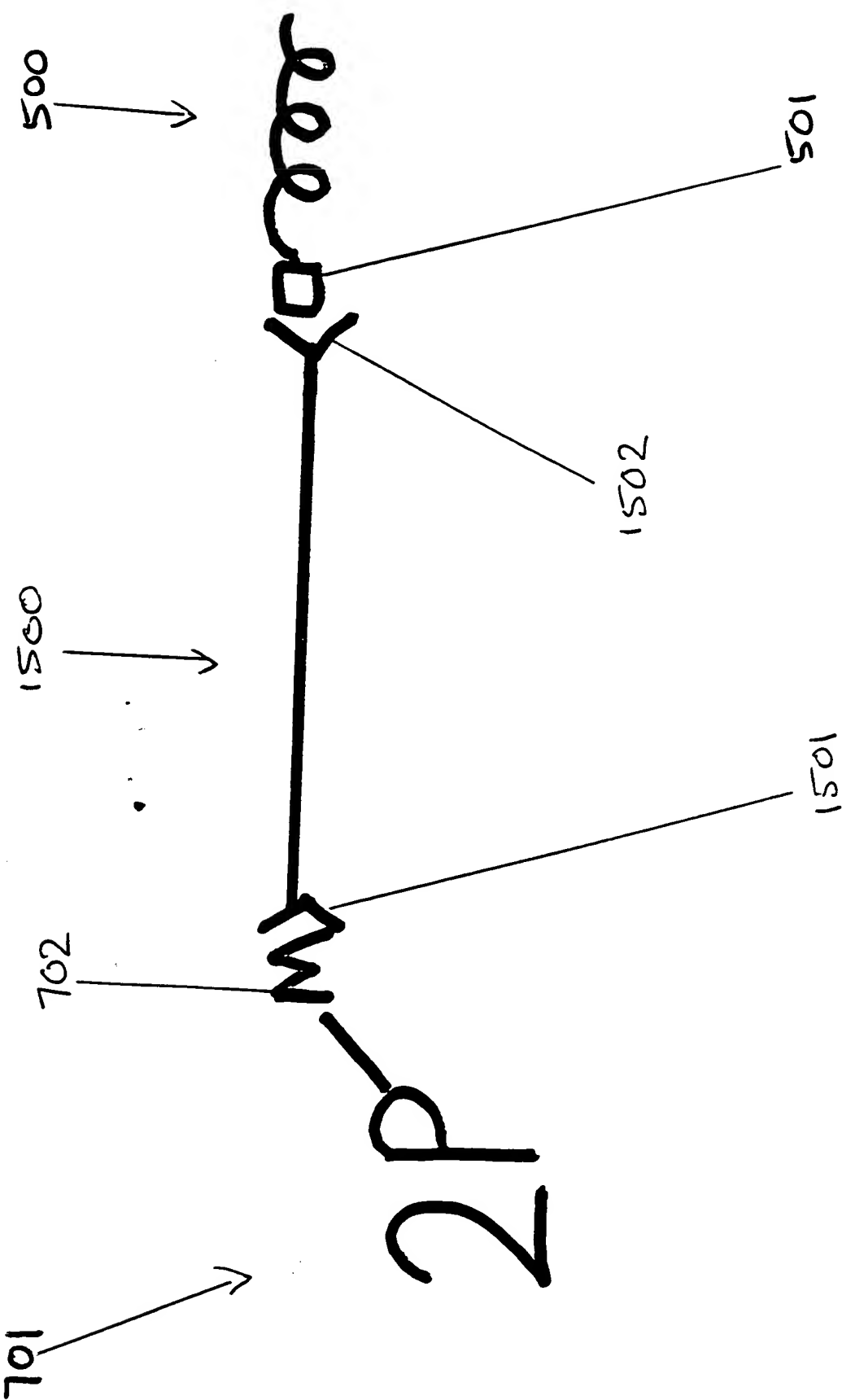


FIG. 40

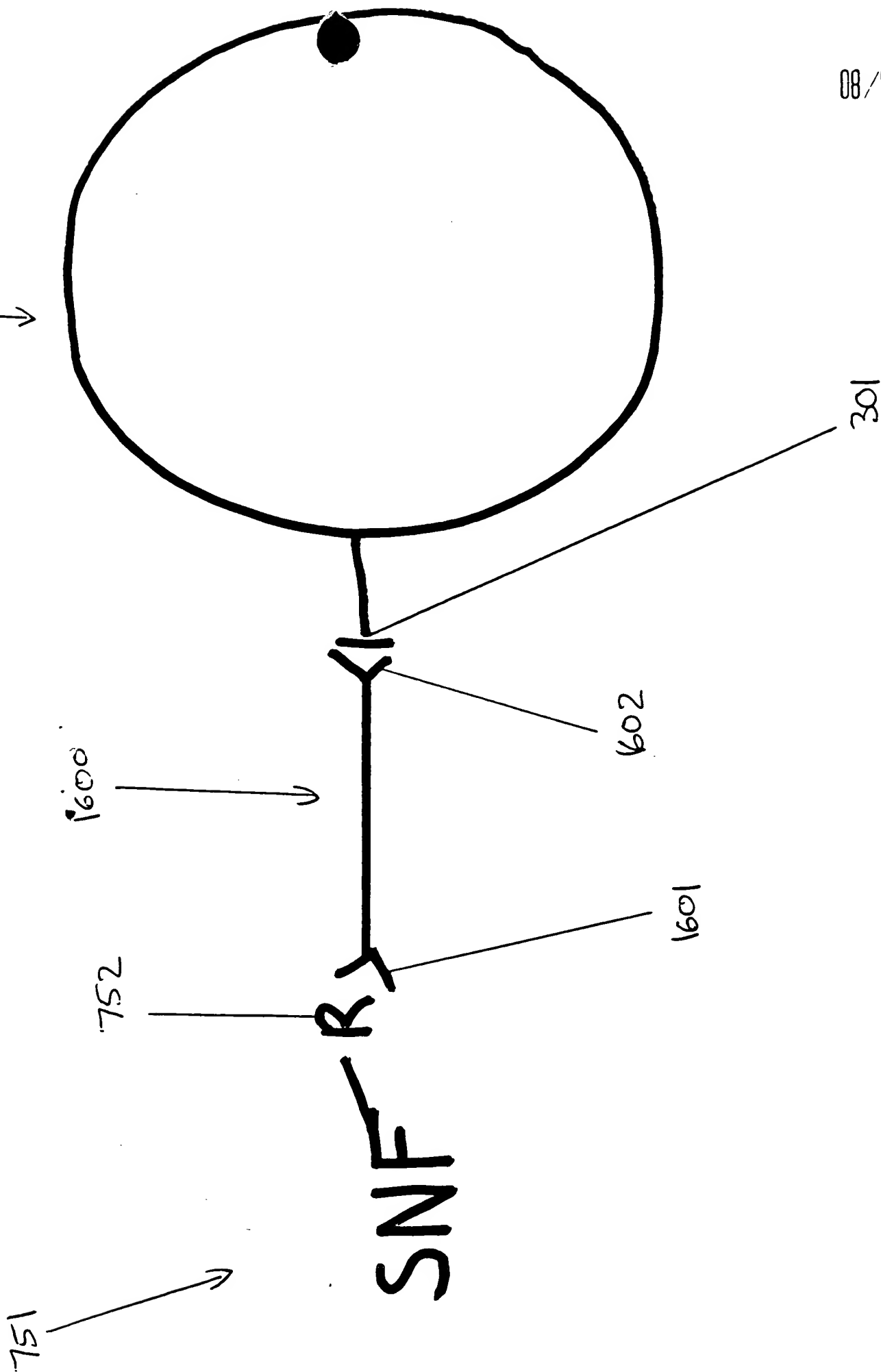


FIG. 41

FIG. 42

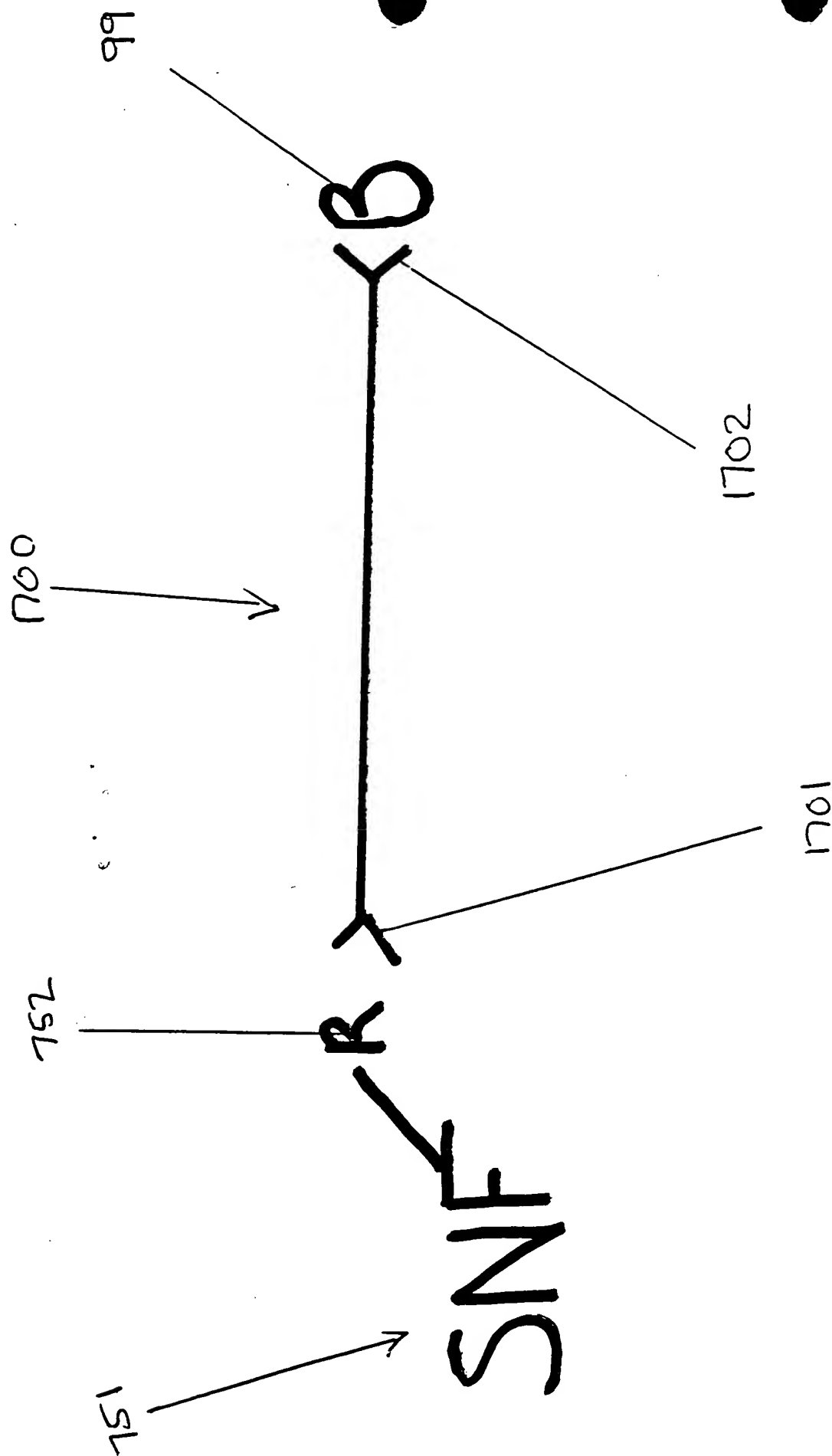
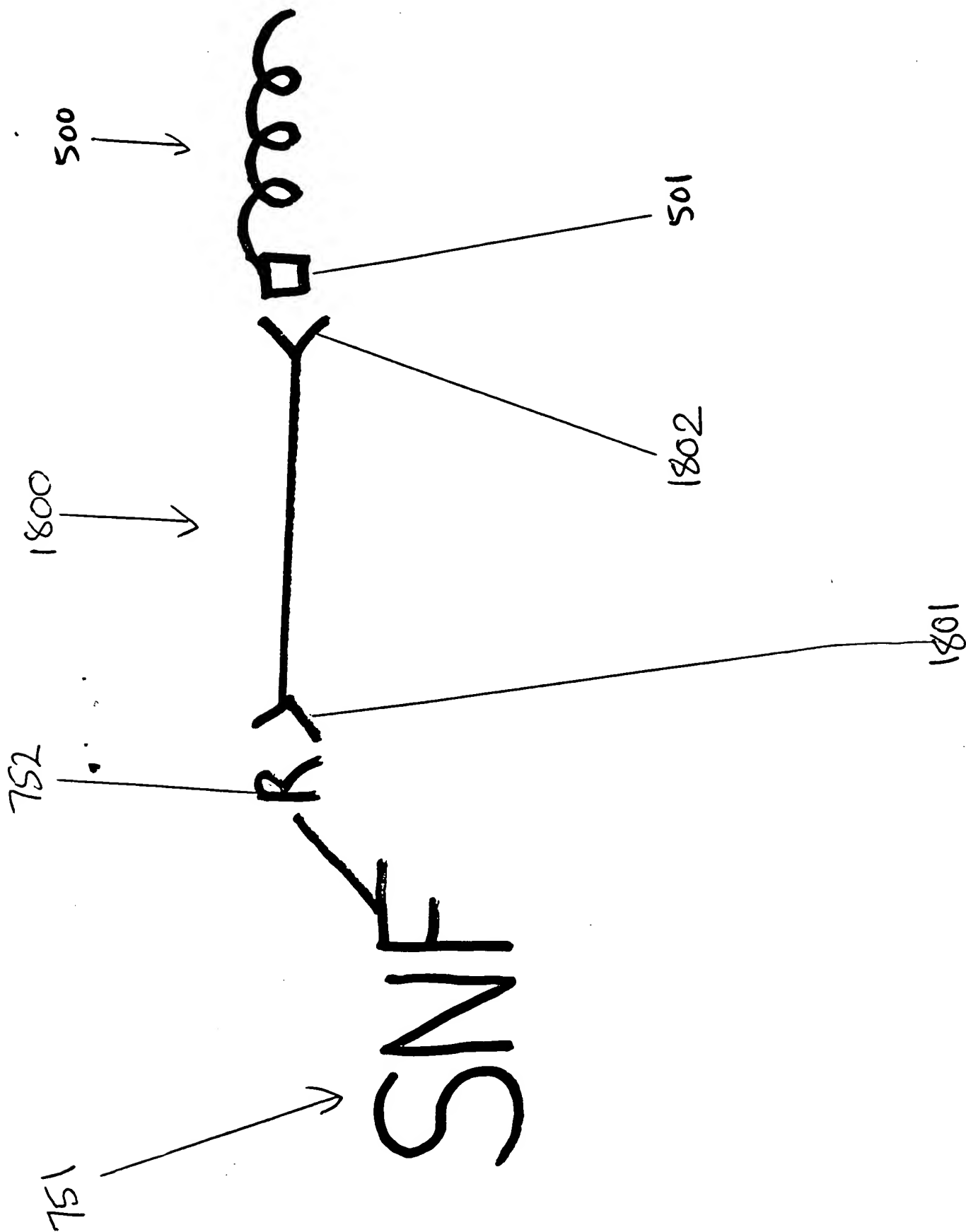


FIG. 43



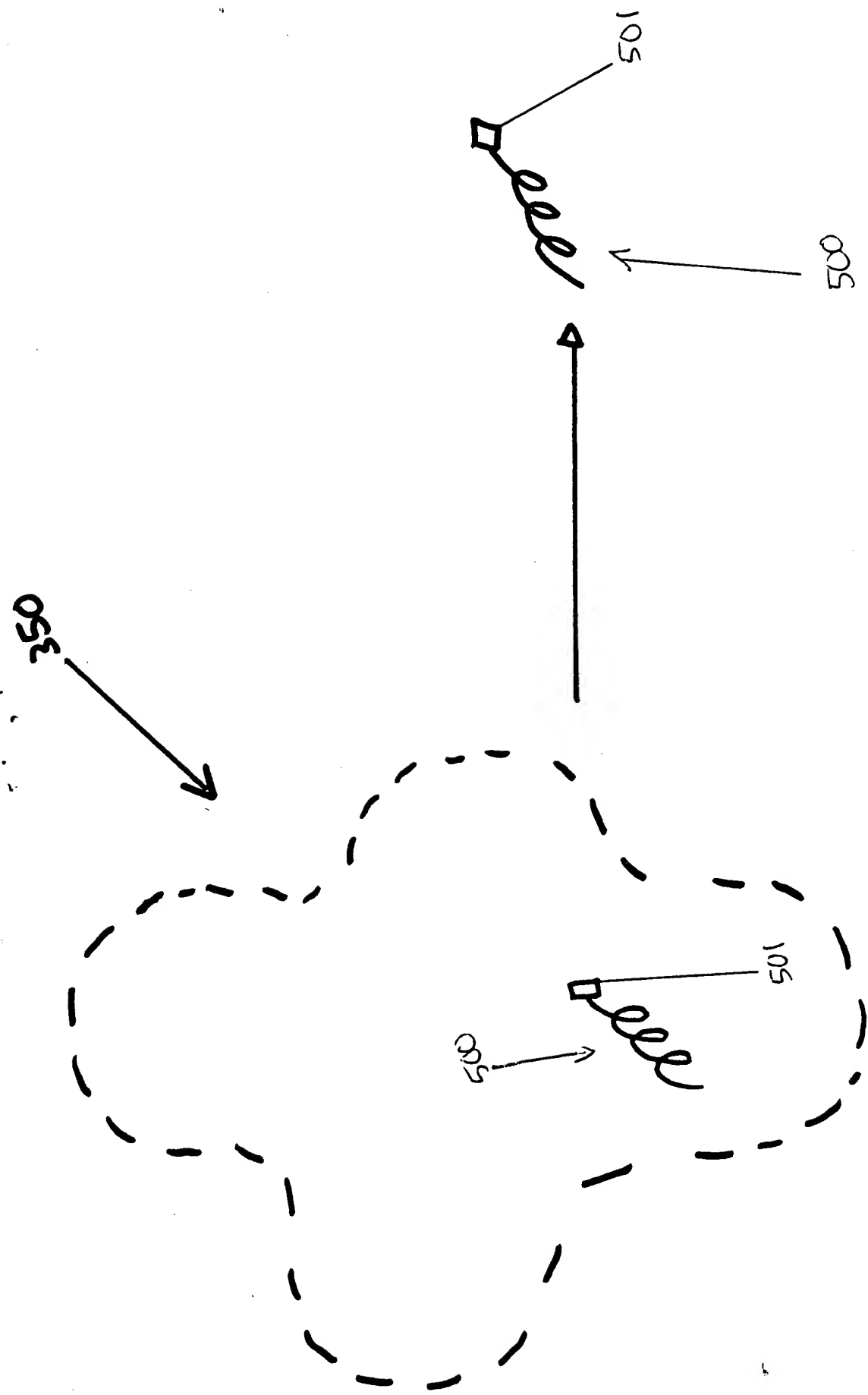


FIG. 44